Progress Report 2021

Accelerating the green transition

October 2021

Welcome to the 2021 Green Investment Group Progress Report

It has been another busy year for Green Investment Group (GIG). This report gives you an overview of our activity in the last 12 months. Unless we've stated otherwise, the report covers the period from September 2020 to August 2021.

Viewing this report

In line with our commitment to sustainability throughout our business operations, we've gone fully digital and paperless with this year's report. For the best experience, explore the full report at www.greeninvestmentgroup.com/progressreport2021. You can still read the report in this pdf format if you prefer but please avoid printing wherever possible.

Throughout this report we have included links which provide more detail on GIG and Macquarie Group activity.

We'd love to know what you think of the report. You can contact us via our website and keep in touch with us all year round via our social channels.

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Message from our Group Head, Mark Dooley

2021 will be a defining year in what will be a decisive decade in the fight against climate change. The world will soon meet at COP26 to conduct the most important global climate negotiations since Paris. Set against a backdrop of the Intergovernmental Panel on Climate Change's (IPCC) latest report, which shows in stark detail the scale and urgency of the challenge in front of us, the call to action is clear – we must raise our ambition.

In response, we've seen a groundswell of countries and corporates committing to net zero, including GIG and our parent company, Macquarie Group (Macquarie). With unprecedented consensus on the destination, the focus now shifts to the pathways and actions that will take us there.

GIG's north star on this journey remains our mission – to accelerate the green transition. It's a mission that is, and has always been, fully aligned with a commitment to help the world reach net zero.

It, therefore, continues to dictate our priorities: delivering new green energy capacity; powering companies and helping them achieve their sustainability goals; and supporting clients to develop new approaches to accelerate and measure their transition.

Doing more, faster

The challenge we've now set ourselves is to raise our own ambitions by doing more, faster. This means driving volume in mature technologies and finding solutions to accelerate the deployment of the new technologies critical to delivering deep decarbonisation.

By evolving our approach from a focus on investing and developing individual assets to creating, acquiring, and partnering with specialist development businesses that are home to teams of technical experts and significant project portfolios, we're able to create volume at a more transformational scale.

It's an approach we're using to accelerate the deployment of new technologies, such as battery storage, as much as established technologies, like solar.

Not only does it amplify the impact of our own balance sheet investments by mobilising additional pools of capital, but it also allows us to activate the widest possible pool of specialist talent – locally, regionally, and globally. And by concentrating our efforts on development, we're able to have the greatest impact on the most critical investment enabling phase of the project lifecycle.

Though this approach, we increased the portfolio's total capacity to over 30 GW across more than 240 projects – from the established markets of the UK and US, to emerging markets including the Philippines and India. It's testament to the age-old adage that we can achieve more by working together than we can alone, and I pay tribute to all our partners on this journey, without whom this simply would not be possible.

And it's in that same spirit that we continue to work as an active citizen of the global green advocacy and policy community. This year, I've been delighted to represent Macquarie on the Sustainable Markets Initiative's Financial Services Taskforce, and to support Macquarie CEO Shemara Wikramanayake in her roles co-chairing Climate Finance Leadership Initiative (CFLI) India and leading the Glasgow Financial Alliance for Net Zero's work in emerging markets. Across GIG and Macquarie we're engaged in a range of climate and net zero initiatives, and you can read more about these in the working in partnership section of this report.

Our net zero commitment

In May 2021, we took the important step of making our own net zero commitment. While GIG only invests in projects designed to accelerate the green transition, it's important that all impacts are stated clearly, and commitments put in place to reduce even relatively small residual emissions. We also wanted to recognise that as our approach to accelerating the transition evolves, we'll need to invest in new technologies and services, particularly where we can help clients and partners in high emissions sectors to decarbonise.

That's why we committed to achieving net zero from financing activities associated with renewable energy projects by 2030 and to aligning the emissions of financing activities designed to decarbonise high emissions and non-renewable energy sectors with net zero by 2050.

We believe that net zero commitments require dynamic plans, evolving in line with science and market developments, so we will provide annual updates on our commitment, with detailed plans and progress updates in these annual Progress Reports, from now on. This year, you can learn more in the commitment to net zero section of this report.

Raising the ambition

Finally, I'd like to pay tribute to the phenomenal work of the GIG team in what's been another extraordinary year. Over 450 people now work under the GIG brand across the globe, from engineers, scientists and asset managers, to finance, investment and structuring specialists. This diverse team, united by their commitment to accelerating the green transition, have created what I truly believe to be one of the most impactful businesses in the world.

At GIG, we're resolute in our mission. And while we don't yet know what the outcome of COP26 will be, the science has shown us what the outcome needs to be. Let's make sure 2021 is remembered as the year we all stepped up and raised our ambition.

M J Dooley

Mark Dooley
Global Head, GIG

Global impact & project activity

With over 30 GW of capacity under development across more than 240 projects, GIG is one of the world's leading green investors and developers.

In addition to this, other parts of Macquarie Group are supporting a further 20 GW of green energy projects in construction or operations. Collectively Macquarie has invested or arranged over $A63 billion in green energy projects since 2010.

Our activity

In development

240+ projects

Total global development pipeline[1]

30+ GW

450 staff operating under GIG brand in[2]

25 markets

Committed or arranged to support green energy projects, including almost £1 billion* during the period[3]

£25+ bn

*This year, GIG committed or arranged £752 million into projects reaching Final Investment Decision (FID) or in operation. In addition to this, GIG also provided over £200 million of development and operational funding to our 30+ GW development pipeline, reflecting our increasing engagement in the earlier stages of the project lifecycle.

1. Includes projects developed directly by GIG or through operating platform.
2. Includes Macquarie Group employees operating under the GIG brand and operating platform employees, as defined above.
3. Combining historic activity where UK Green Investment Bank (GIB), Green Investment Group (GIG) or Macquarie Capital have committed their own funds or arranged third-party capital and/or financing.

Investing across the globe

During the period September 2020 to August 2021, we invested in green energy projects and businesses across Europe, North America and Asia Pacific; we accelerated the deployment of mature technologies, such as solar and wind, and next generation energy solutions, including hydrogen, battery storage and e-vehicle charging; and despite challenges posed by the ongoing COVID-19 pandemic, our projects continued to meet important development milestones.

- Markets where GIG is active
- Office locations

Our green impact

	Green impact from investments in the year[4]	Green impact from all investments to date[6]
Greenhouse gas emissions avoided	**28,734** kt CO_2e equivalent to **removing over 380,000 cars from the road[5]**	**222,009** kt CO_2e equivalent to **removing nearly 3 million cars from the road[5]**
Renewable energy generated	**35,115** GWh equivalent to **meeting the electricity needs of nearly 270,000 homes[7]**	**589,691** GWh equivalent to **meeting the electricity needs of over 5.5 million homes[7]**
Waste to landfill avoided	**19,266** kt equivalent to **eliminating the landfill of over 830,000 households[8]**	**134,077** kt equivalent to **eliminating the landfill of 5.8 million households[8]**

4. All green impact data is for the period 1 April 2020 to 31 March 2021 and reported on a 'projected lifetime' basis.
5. For 25 years, calculation based on standardised petrol vehicle efficiency and mileage.
6. Combining historic activity to 31 March 2021 where GIB, GIG or Macquarie Capital have contributed equity or debt, and reported on a 'projected lifetime' basis.
7. For 25 years, calculation based on country specific data (Enerdata).
8. For 25 years, calculation based on UK benchmark numbers.

Focus on workplace health, safety, environment and social matters

As an investor, developer, asset manager and owner of businesses, we treat workplace health, safety, environment and social (WHSES) matters as an opportunity to add value beyond sound risk management.

A multi-pronged approach

As part of Macquarie Group, we have been developing our WHSES programme to ensure it is appropriate for GIG's activities and have created a multi-pronged approach focused on six key areas: governance, communication, resourcing, community, reporting, and technology enablement.

Our WHSES management system includes early-stage planning through due diligence and hazard identification, climate change risk, HSE resourcing, governance enhancements, investment monitoring, and incident response management.

Additionally, we work in partnership with a number of industry associations and not-for-profits in key sectors to demonstrate our support for the communities interfacing with our investments.

Multi-pronged approach to WHSES focusing on six areas:

1. Governance

WHSES Management System and Framework, WHSES Committee

2. Communication

Newsletters, sharing lessons learned, check-ins

3. Resourcing

Ensuring the appropriate level of WHSE resourcing at our assets

4. Community

Facilitating continuous learning through sharing of lessons learned, new practices and creative solutions internally and externally with industry peers

5. Reporting

Portfolio and asset level reporting on leading and lagging indicators

6. Technology enablement

E3 Salesforce platform to facilitate reporting

A robust WHSES culture

Our objective is to engage, empower and ensure a robust WHSES culture and we aspire to positively influence WHSES practices at our assets through the people, partners, companies and communities with which we work.

Engage

- We engage with relevant stakeholders to identify opportunities to reduce WHSES risk at source and to enhance management approaches
- We remain relevant to business needs, aligning WHSES goals with business strategies

Empower

- We empower WHSES leadership with integrity, influencing both internal and external stakeholders to uphold the standards we set
- We empower our workers, contractors and subcontractors with the ability to speak up or stop work whenever they feel unsafe

Ensure

- We ensure accountability through a clear statement of commitments and a robust framework of governance
- We take responsibility for the safety of our workforce and require our contractors and subcontractors to do the same

Responding to COVID-19

The welfare, health and safety of our people has been and continues to be our top priority during the COVID-19 global pandemic. We have provided COVID-19 health and safety training to principal directors and deal teams which covers employee safety guidance, as well as safety guidance for managing our principal investments. We have also incorporated monthly check-in meetings with the principal directors of our high-risk assets to monitor status of COVID-19 on-site, share WHSES lessons learned, and provide support and guidance.

Our supply chain

Through our WHSES programme we seek to support our development teams in applying responsible criteria to their supplier selection and procurement activities. GIG takes the reports of human rights abuses and recent allegations associated with polysilicon manufacturing in Xinjiang seriously. We have enhanced our due diligence process for supplier contracts to understand this very complex matter. Our enhanced due diligence includes traceability studies, social audits, reporting and escalation procedures, and ongoing monitoring.

You can learn more about Macquarie Group's wider approach to WHSES in its recent Annual Report.

Spotlights

Development and asset management

With over 240 projects now in development or construction, GIG is a leading global developer of new green energy projects. Our expert in-house development, project and portfolio management teams work with GIG's partners and portfolio companies to create new projects, manage them through construction and deliver them into operations. From the first dollar to the first electron, we're providing the technical and financial solutions to make projects happen, create value, enhance operational performance, and accelerate the deployment of green energy around the world.

Despite ongoing challenges posed by the COVID-19 pandemic, our development and construction projects have continued to meet important milestones. In June 2021, our Formosa 2 offshore wind project in Taiwan safely completed the installation of four export cables as scheduled. In Korea, the first phase of our 1.5 GW development in Ulsan became the country's first ever floating offshore wind project to gain an electricity business licence, granting GIG and partners TotalEnergies exclusive development rights for the site, enabling the next phase of detailed environmental impact assessments to commence.

GIG and TotalEnergies were also successful in securing rights to develop 1.5 GW of offshore wind capacity on the east coast of the UK. With the final agreement for lease expected to sign in 2022, the Outer Dowsing Offshore Wind project will play a central role in delivering the UK Government's ambition to install 40 GW of offshore wind by 2030. With further bids submitted and in preparation for upcoming leasing rounds, including in Scotland, France and Norway, we expect that portfolio to see significant continued growth throughout 2022.

In onshore wind, GIG is currently constructing 170 MW of capacity across projects in Norway and Sweden. Installation and commissioning of turbines has commenced at our Tysvaer and Buheii projects, with final commissioning of both projects anticipated during 2022. We continue to see growing interest in the Polish market, and successfully arranged power purchase agreements with our onshore wind assets for AirProducts and Danone Companies in Poland, taking the total renewable energy capacity supported by GIG power purchase agreements to 3.9 GW.

Our UK portfolio of waste to energy projects, delivered through our partnership with Covanta, have also made significant progress. The Rookery South project in Bedfordshire has started to burn waste and entered its final phase of commissioning, and we continue to work at Earls Gate in Grangemouth, Scotland and Newhurst in Leicestershire. In December 2020, we added the Protos Energy Recovery facility to our portfolio, reaching financial close and commencing construction on the 400 ktpa plant in Cheshire, England.

Throughout all of this work, health and safety remains a key priority. Read more about our approach to health and safety and about our development and construction assets.

In addition to GIG's work, Macquarie Group is taking a market leading approach to sustainable real asset management and working to create climate resilient infrastructure. During the reporting period Macquarie Asset Management, the world's largest infrastructure manager, announced a plan to manage its portfolio in line with net zero emissions by 2040, and joined the Net Zero Asset Manager's Initiative and signed The Climate Pledge. As a leading sponsor of new infrastructure, Macquarie Capital is designing climate resilience into new infrastructure to deal with a higher frequency of extreme weather and rising sea levels.

New technology

Net zero demands a whole economy transition and a fundamental redesign of our energy systems, supported by enormous technological innovation. New technologies such as battery storage, hydrogen and carbon capture are expected to deliver a vital contribution to emissions reductions, but to achieve that, we need to see an immediate and significant increase in the deployment of these technologies and supporting infrastructure.

GIG is committed to delivering commercial solutions for the rapid and large-scale deployment of new technologies that will deliver deep decarbonisation across all sectors of our economy.

IEA analysis suggests that by 2050, we need to be supplying almost half of total energy consumption from electricity to achieve net zero. This huge shift to electrification is already under way, led by the rapid deployment of renewable technologies, and now in the transformation of the transport sector. In June 2021, we launched our partnership with Heliox, creating one of the first 'charging-as-a-service' offerings for fleet electrification in Europe. By constructing and maintaining charging facilities on behalf of our customers, the service removes up-front costs, reducing one of the main barriers to fleet electrification.

With greater electrification, and a growing share of renewables in generation, comes a greater need for system flexibility through technologies like battery storage. In June 2021, we acquired our first utility-scale battery storage development portfolio. We're now working to co-develop that portfolio of seven projects – strategically located across severely congested areas of the UK grid network – with partner Capbal.

Not all sectors can be electrified, and this is where hydrogen has a critical role to play. The IEA suggests the use of hydrogen will need to double over the course of this decade to meet net zero. To help meet this demand, we're working to advance a number of projects with partners globally. This includes our work with SGN which is exploring the potential to create a hydrogen super-hub at the Port of Southampton – one of six major industrial clusters in the UK. As well as the hydrogen network, the feasibility study is exploring the addition of a carbon capture, utilisation and storage (CCUS) network to help further support the Port's decarbonisation efforts.

Batteries, e-mobility, hydrogen and CCUS will continue to be some of the most important innovations driving the next phase of the energy transition. By applying our partnership and platform creation model to these emerging technologies, GIG is delivering the commercial solutions to accelerate their deployment. You can find out about our global platforms and partnerships in the impact and activity section of this report.

Macquarie Group is also a leader in global carbon markets, creating new products and investing to support the deployment of new technologies that enable the decarbonisation of our clients and portfolio companies. During the reporting period, Macquarie's Commodities and Global Markets business was awarded Environmental Products Bank of the Year, created a new Global Carbon business, and our Asset Finance business has continued to grow its smart meter portfolio and is financing the deployment of hydrogen fuel cell electric trucks in North America. For the fifth year in a row Macquarie Capital was named the number one global finance advisor in renewable energy

Creating volume

Achieving net zero by 2050 requires unprecedented volumes of green energy to be deployed over the course of this decade. According to the IEA, by 2030 we need to be installing 630 GW of solar PV and 390 GW of wind every year – four times the record levels set in 2020. That's why GIG has shifted its focus from developing and investing into individual assets, to delivering volume by creating, acquiring and partnering with specialist development businesses.

This approach is best illustrated through Cero Generation, our European solar development platform, launched in February 2021. Over the past three years, we partnered with developers across Europe to assemble an 8 GW development portfolio – one of the largest in Europe. To take that portfolio on the next stage of its journey, we created Cero as a specialist development business, with a team of 40 experts. Since its launch, Cero has formed a new partnership with EDF Renewables and Green Lighthouse Development in France, expanded into the Greek market through a partnership with WattCrop, and delivered its first Spanish projects into operations.

Cero follows in the footsteps of our specialist solar development platforms Blueleaf Energy in Asia Pacific and Savion LLC in North America, which have also seen continued growth throughout this year. Of particular note is Blueleaf's expansion into the emerging markets of India, with partner Vibrant Energy, and the Philippines with SunAsia, as well as its entry into Japan through the creation of Hinode Energy – a new joint venture with Univergy. In the US, Savion has been busy progressing its 14+ GW development pipeline and has signed new PPAs with Dominion Energy Vision, AEP Energy Partners and Target Corporation.

In October 2020, we also launched Calibrant Energy, a joint venture with Siemens. Calibrant offers onsite Energy-as-a-Service solutions to corporate, industrial and public sector clients to help them manage their energy transition. In May 2021, Calibrant completed the delivery of solar power systems at Eldorado Middle School in Illinois, US, which will provide around 90 per cent of the school's electricity needs.

Our approach enables us to combine GIG's financial and technical experience, resources and global reach with the local expertise of our partners to create market-leading specialist development businesses. Looking forward, we expect to continue to replicate this model across different markets and technologies, delivering volume at a transformational scale and pace. You can read more about the activities of our development platforms and partnerships in the impact and activity section of this report.

In addition to GIG's activities, other parts of Macquarie Group, often through managed funds, are extensively supporting the green transition. During the reporting period GIG partnered with Macquarie Asset Management to raise €1.6 billion for a new renewable energy fund. You can read more about that fund in the funds under management page of this report or learn more about Macquarie's wider activities.

cero

blueleaf energy

SAVION
A RENEWABLE ENERGY COMPANY

Funds under management

To meet the goals set out in the Paris Agreement, total annual investment in renewable-energy technologies needs to increase from about $US300 billion to almost $US800 billion by 2050[1]. To help bridge this gap and connect institutional capital with green energy projects, GIG has partnered with Macquarie Asset Management in two dedicated renewable energy funds and invested climate finance on behalf of the UK Government.

UK Climate Investments

UK Climate Investments is a joint venture between GIG and the UK Government. With an objective to invest £200 million of the UK's international climate finance, UK Climate Investments seeks to mobilise investment in green infrastructure in key emerging economies and developing countries. To date, UK Climate Investments has made six transformational investments in sub-Saharan Africa and India.

During the period, UK Climate Investments completed delivery of 254 MW of clean energy projects in South Africa. The partnership, with majority black-owned and managed renewable energy developer H1 Holdings, delivered two onshore wind farms and a run-of-river hydropower facility. The projects created approximately 600[2] jobs during construction and operations while supporting the country's transition to cleaner sources of electricity. This major milestone was accompanied by progress on other initiatives in Africa, with UK Climate Investments helping to crowd-in institutional capital into a green affordable housing platform in Kenya. The platform has allowed UK Climate Investments to begin investing in and supporting the creation of an unlisted renewable energy yieldco for investment in sub-Saharan Africa.

In India, UK Climate Investments agreed the sale of its first investment during the period – a 60 MW solar farm in the Maharashtra region. Financing from UK Climate Investments was critical to the delivery of the solar farm, which represented the first utility scale project developed by leading international solar energy company Lightsource BP in India. Over its long-term operation, the project will power the equivalent of 75,000 homes while helping to avoid harmful air pollutants and greenhouse gas emissions

1. International Renewable Energy Agency (IRENA)
2. H1 Holdings

Macquarie Green Investment Group Renewable Energy Fund 1

Established in 2017, Macquarie Green Investment Group Renewable Energy Fund 1 (MGREF1) was the world's first dedicated offshore wind fund. Today, it manages investments in a portfolio of six operational offshore wind farms around the United Kingdom representing approximately 1,450 MW of generation capacity.

Strong and consistent winds and high operational availability over the reporting period ensured the portfolio continued to make an important contribution to the UK's supply of green electricity.

To date, the MGREF1 portfolio has avoided more than 11.0 Mt of greenhouse gas emissions and produces enough renewable electricity to power the equivalent of 1.2 million homes each year.

Macquarie Green Investment Group Renewable Energy Fund 2

During the period, Macquarie Asset Management and GIG completed fundraising for a second pooled fund dedicated to renewable energy investments – Macquarie Green Investment Group Renewable Energy Fund 2 (MGREF2).

More than €1.6 billion was raised at final close, exceeding an initial fundraising target of €1 billion. Commitments were received from 32 investors globally, with investors comprising pension funds, local government pension schemes, insurers, and sovereign wealth funds.

This strong interest underlines the growing appetite of a diverse range of institutional investors in contributing to the low carbon transition. Building on the success of its predecessor, MGREF2 is mandated to invest in platforms and construction and operational stage wind and solar projects predominantly in Western Europe, but also across the United States, Canada, Mexico, Japan, Taiwan, Australia and New Zealand.

The fund has made two investments to date, acquiring a 10 per cent stake in the 576 MW Gwynt y Môr Offshore Wind Farm in the United Kingdom and a 50 per cent stake in a 268 MW portfolio of operating residential rooftop solar projects across the United States.

GIG provides tailored green impact reporting to MGREF2's underlying investors and deep technical expertise to Macquarie Asset Management in developing greenfield renewable energy projects. Building on this successful partnership, Macquarie Asset Management and GIG will also explore opportunities for co-investment – bringing together the specialist capabilities of GIG, with the long-term, third-party capital and investment expertise of Macquarie Asset Management.

Macquarie's growing climate solutions capabilities

A message from Daniel Wong, Chair of GIG and Macquarie Group's Global Green Committee

For almost two decades, GIG's parent company, Macquarie Group, has worked with governments and clients to drive the energy transition and advance practical solutions to climate challenges. Over that time we have consistently grown the scale of our contribution and extended our capabilities.

Our growth has come through strategic acquisition, like the UK Green Investment Bank in 2017, and by incrementally expanding from areas of core strength. In addition to the global growth of GIG that you can read about in this report, Macquarie has developed leading positions in client advisory, where we have been the number one global financial advisor in renewable energy for the past five consecutive years. In the area of asset management we have set a market leading ambition to manage the world's largest portfolio of infrastructure assets in line with global net zero by 2040. And our colleagues in the commodities and markets business are leaders in global carbon markets, and environmental products bank of the year.

We work hard to make sure that we are more than the sum of our parts. Climate leaders from every part of the Group meet monthly to drive collaboration and innovation. You can read more about our collective capabilities and commitments here and through the climate pages on our website. This also includes details of how we are working in partnership to drive the wider change needed to achieve our shared global climate goals. Our CEO, Shemara Wikramanayake, is leading the Group's contribution on important initiatives through the newly established Glasgow Financial Alliance for Net Zero and the recently launched CFLI India partnership, with the support of colleagues from across the Group.

GIG, as a centre of excellence on green investment, has been instrumental in driving the rapid expansion of Macquarie's climate capabilities and, in turn, GIG has benefited from Macquarie's wider capabilities and global reach. We believe that this complementary combination brings a powerful, broad and deep suite of practical climate solutions to the benefit of our clients and communities.

This is how we are working together to rise to the greatest challenge, and opportunity, of our time.

Daniel Wong
Global Co-Head of Macquarie Capital and Chair of GIG

Watch a short film on Macquarie's recent activities

Visit Macquarie Group's climate hub

Read how Macquarie is supporting the transition to net zero

Working in partnership

Our mission to accelerate the green transition is most effective when working in collaboration. Alongside colleagues across Macquarie, we are proud to participate in numerous important initiatives and events to promote the development of a greener global economy and take collective action to tackle the climate emergency

Industry associations we work with

40+

Events participated in

130+

Attendees at GEC from 44 countries

2,000+

Global community we support

Raising the ambition with GEC

We moved the annual Macquarie Green Investment Group Green Energy Conference (GEC) online in October 2020 in response to the global COVID-19 pandemic. The virtual format allowed us to reach our biggest ever audience. Over 2,000 delegates joined us from 44 countries around the globe to hear from leading figures in the energy transition and join the discussion on the 'Decisive Decade'. We are delighted to be hosting GEC virtually again in 2021 ahead of COP26.

Collaborating with BloombergNEF

Through our collaboration with BloombergNEF, we continue to make green impact data available to organisations wishing to invest in or procure electricity from high impact wind and solar projects. The latest features allow users to calculate GIG Carbon Scores of selected portfolios and a total of 65,000 assets around the globe now have a GIG Carbon Score.

Training young people for green jobs with Generation

GIG and Macquarie have partnered with Generation: You Employed, UK to offer a new training programme for unemployed young people that will provide them with the skills they need to thrive in the green sector. The pilot programme will support 100 18–29 year olds facing barriers to employment, training them to become retrofit advisors who help households across the country improve the energy efficiency of their homes.

Accelerating the transition with FAST-Infra

FAST-Infra — the 'Finance to Accelerate the Sustainable Transition-Infrastructure' initiative – focuses on accelerating investment in sustainable infrastructure. Established in 2020 by the Climate Policy Initiative (CPI), HSBC, the International Finance Corporation (IFC), Organisation for Economic Co-operation and Development (OECD) and the Global Infrastructure Facility, active participation in the initiative has now grown to over 50 global entities, including governments, the financial sector, investors and non-governmental organisations (NGOs). GIG is co-chair of the Sustainable Infrastructure (SI) label working group which is developing a globally applicable label for SI assets to provide coherency for market participants, facilitate investment decisions and raise standards across the globe.

Helping to mobilise climate finance with CFLI

Established in 2019 by Michael Bloomberg, the UN Secretary General's Special Envoy for Climate Action, the Climate Finance Leadership Initiative (CFLI) brings together CEOs from major corporates to consider how to mobilise and scale private capital for climate solutions. Macquarie is a founding member of CFLI and Macquarie CEO, Shemara Wikramanayake, was recently announced as co-chair of CFLI India. The GIG team supports Shemara in her GCA role.

Supporting the Glasgow Financial Alliance for Net Zero (GFANZ)

In April 2021, GFANZ was launched by Mark Carney, UN Special Envoy on Climate Action and Finance, bringing together over 160 firms from the leading net zero initiatives across the financial system to accelerate the transition to net zero emissions by 2050 at the latest. Macquarie is a member of GFANZ and in July 2021, Shemara Wikramanayake was announced as leading a GFANZ workstream on emerging markets and mobilisation of capital. The GIG team is supporting Macquarie's work on this programme drawing on experiences of advancing climate solutions in emerging markets.

Accelerating progress with SMI

The Sustainable Markets Initiative (SMI) was launched by His Royal Highness the Prince of Wales at The World Economic Forum 2020 Annual Meeting in Davos to focus on accelerating global progress towards a sustainable future. GIG's Global Head, Mark Dooley, represents Macquarie on the SMI's Financial Services Taskforce and co-chairs its Sustainable Infrastructure workstream, which is working on actionable plans to accelerate investment in sustainable infrastructure.

Our governance

Our green mission underpins everything we do. All activity undertaken under the GIG name and brand aligns to our Green Objective, by contributing to one or more of the five Green Purposes.

Our Green Purposes

01
Reduce greenhouse gas emissions

02
Advance natural resource efficiency

03
Protect or enhance the natural environment

04
Protect or enhance biodiversity

05
Promote environmental sustainability

Operational structure

Green Investment Group Limited is Macquarie Group's primary vehicle for principal investment in green energy projects and platforms.

Green Investment Group Limited is owned by the UK Green Investment Bank Limited, which is indirectly owned by Macquarie Group Limited. The Articles of Association of UK Green Investment Bank Limited contain the Green Objective, which lists our five Green Purposes. These Green Purposes can be altered only with the consent of the holder of the 'special share' in UK Green Investment Bank Limited. No proposal has been made to amend the Green Purposes since the business was acquired by Macquarie Group in 2017. Updated definitions of the five Green Purposes have been agreed and can be found in our Green Investment Principles or Green Investment Policy.

In the UK and Europe, new investments made under the GIG name are made by Green Investment Group Limited or its affiliates. In the rest of the world, investments may be made by other Macquarie Group entities using the GIG name and brand for trading and marketing purposes. This is permitted only on the basis that any activities under the GIG brandmark be compliant with the Green Objective and any investments comply with GIG's Green Investment Principles and Green Investment Policy.

The Green Purposes Company

Green Purposes Company

The Green Purposes Company (GPC) holds the 'special share' in UK Green Investment Bank Limited. The GPC is a company limited by guarantee, owned and operated by trustees who are independent of GIG and Macquarie Group. The primary role of the trustees is to approve or reject any changes proposed to GIG's Green Purposes as they apply in the UK and Europe. The Trustees were appointed on 31st October 2016 for an initial term of five years commencing August 2017. In performing its role, the GPC is committed to public accountability, transparency and competency, and to contributing positively to the future development of GIG.

Engaging with the GPC

GIG maintains a strong and constructive working relationship with the GPC trustees.

While we continued to work remotely throughout the reporting period due to the COVID-19 pandemic, GIG's senior leadership continued to meet the GPC virtually on a quarterly basis to discuss our projects, evolving business strategy, and green impact; and we hosted a virtual 'site visit' for the trustees to meet Cero partners Enso Energy and discuss their approach to solar development in the UK.

The trustees also continue to receive information relating to the green impact of all new GIG transactions as they happen.

The GPC has provided input to this report, through the provision of a letter which comments on our performance against our five Green Purposes. Read this letter in the GPC: Annual letter section of this report.

Green Purposes Company Limited: Annual letter 2021

Introduction

This is our fourth annual letter in which we independently comment on GIG's performance against its green objective and five green purposes. The letter addresses GIG's activities in the UK and Europe for the financial year 2020/21. We confirm that no request to change the green purposes has been received since our last letter.

During this reporting period we reached the three year anniversary since privatisation. We provided a letter to the Public Accounts Committee regarding GIG's performance against the commitments made at the time of the sale, in which we noted that these had been fulfilled.

GIG remains, in our view, a market leader in renewable energy investment. It is clear however, that GIG now operates an increasingly crowded market. Other actors are progressively influential in renewable energy investment, and in green finance more generally. And market good practice, such as in green impact reporting where GIG has led the way, is also advancing. GIG therefore needs to continue to evolve if it wishes to maintain a market leading position and to fulfil its mission to 'accelerate the green transition'.

Against this background, we draw attention to areas where we believe GIG can further strengthen its performance against its green objective and five green purposes (hereon in the "GPs") as enshrined in its articles.

Working relationship between GPC and GIG

We enjoy a constructive relationship with GIG, including quarterly meetings with their senior leadership team and subject matter experts, with no significant impact from the pandemic and switch to remote working. Our regular meetings, together with an information sharing protocol, have helped ensure that the GPC and special share arrangement remains effective. It is important that GIG continues to devote the time and resources necessary to ensure this remains the case.

Investment strategy

GIG appears to be having a positive influence over the wider Macquarie group in respect to their approach to green investment. This is significant and welcome: Macquarie is a major global infrastructure investor with the resources and influence to accelerate the flow of capital into green projects around the world in support of net zero.

We continue to encourage GIG to invest beyond carbon reduction projects, and to use all investments to contribute to the full spectrum of their GPs. This was a point also noted by BEIS in its evidence to the PAC and, in our view, could help these essential markets scale further on commercial terms.

Green impact reporting

GIG operates a Green Governance Framework to ensure compliance with, and to measure impact against, the GPs. We are pleased that GIG applies this to all global activity undertaken using the GIG brand.

We welcome the updated definitions of the GPs which were developed during the year. These should help avoid misinterpretation. The process reinforced the need to further develop robust methodologies and quantified metrics for some of the GPs. We would also welcome further progress in implementing recommendations made from the independent review of the Green Investment Ratings methodology.

We have noted in previous letters the limitations of using the IFI (International Financial Institution) methodology and data sets. As such, we welcome GIG's commitment to undertake sensitivity analysis using more up-to-date national data sets where these exist. In this regard, and in general, we encourage greater transparency of the methodology and data sets used such that it is possible to readily verify the claimed contribution of a project to a green purpose. This is particularly important with respect to development platforms and pre-construction investments where green impacts are being forecast or are not yet defined.

It is welcome to note that GIG's process for identifying and resolving any negative impacts of a development that require mitigation and compensation appears to be well-documented. Nonetheless, GPC lacks evidence that any measures go beyond minimum legal requirements.

We note the conservative approach to measuring the green impact of battery storage investments. In this case all benefits have been attributed to Green Purpose 5 (promotion of environmental sustainability) whereas in all likelihood the project would also contribute to Green Purpose 1 (reduction of greenhouse gases). Trustees understand the challenges around this and would welcome further engagement with GIG on how the impact of such new technologies should be assessed against the GPs.

External green assurance

GIG's independent green assurers have provided unqualified, limited assurance to GIG on its green impact reporting. We note that in granting this assurance, the quality or accuracy of the underlying data was not in scope, only the calculation methodologies and output data are verified. While this meets with current market expectations, GIG should consider broadening the scope of its approach to assurance in order to improve confidence in the application of its methodologies.

Innovation

Notwithstanding our earlier point on encouraging a wider range of green investment, GIG has continued to broaden its approach across new markets and important technologies needed to meet net zero. This, together with innovation in project design and financing structures, and a willingness to fund projects at early stage, continues to set them apart from other actors.

Thought leadership and influence

This continues to be a strength with GIG, and increasingly the wider Macquarie group, playing an active leadership and influencing role in relation to net zero. The flagship Green Energy Conference, engagement at political and international level by Macquarie's CEO, thought leadership, and the new Green Talks series - among other examples - demonstrate GIG's commitment in this area.

Investment record

In our previous letters we have reported on the value of investments made across the UK, Europe and the result of the world. This allowed GPC to verify the £3bn commitment by GIG at the time of privatisation. Now that commitment has been met GIG no longer provides this information and therefore we are unable to report on investment values.

GIG has provided green dashboards and other information in respect of the investments made over the period as required by the information sharing protocol. The consistency, accuracy, and timeliness of the information provided however could be improved and we look forward to helping develop an improved procedure.

Divestments

In our last letter we identified the risk of double counting green impact if a new investor claimed benefits already reported in GIG's lifetime green impact assessment. We are pleased to see that GIG now highlights this risk.

Forward look

August 2022 will mark the five year anniversary of the GPC, and the end of initial tenure of the current Trustees. It is GPC's intention to continue its role and to ensure continuity of Trustees, but in anticipation of some rotation we plan to commence the search for a small number of successors in early 2022.

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

Trevor Hutchings
Chair, for and on behalf of the Trustees of the Green Purposes Company

30 September 2021

Our commitment to net zero

In May 2021, Macquarie Group published a commitment to align with the global goal of net zero. On the same day, GIG published its own commitment to a series of GIG-specific net zero aligned actions, which would build upon our existing green governance.

In setting out the new GIG net zero commitments, we explained how GIG's approach would align with and support the Macquarie Group approach, which will be detailed in a Macquarie Net Zero Plan to be published by the end of 2022. While we are working with colleagues across Macquarie to progress that Plan, we have provided below a short interim update including new data that expands the scope of our previous reporting.

May 2021	GIG makes a commitment to net zero by 2030 for our renewable energy assets and 2050 for all other assets
June–September 2021	• Pilot methodologies for carbon accounting, including Partnership for Carbon Accounting Financials (PCAF) – identify any data gaps • Work with industry to share lessons and contribute to shaping more detailed frameworks – e.g. through the Sustainable Markets Initiative
October 2021	Progress Report 2021: report on avoided emissions as usual and expand scope to reporting on financed emissions
FY21/22	• Ensure GIG is fully aligned with the Group on net zero methodologies and governance • Incorporate net zero principles into our investment due diligence • Capture new data where required to expand our carbon accounting methods • Work with our investment teams to design plans for decarbonising our assets
October 2022	Progress Report 2022: full report on financed emissions, detailed plan for decarbonising our portfolio emissions, setting science-based interim targets

Our approach to reaching net zero

GIG's mission, held consistently since the formation of the business in 2012, is fully aligned with a commitment to help the world reach net zero.

We operate within a corporate governance framework which requires all GIG investments to be aligned with our mission and to contribute to specific green purposes, including the reduction of greenhouse gas emissions. These green purposes are enshrined in our company constitution, as described in the Governance overview. For the past eight years we have reported annually on our green impact with market-leading transparency.

We recognise, however, that while our activity is designed to accelerate the transition, the projects that we finance still produce greenhouse gas emissions – we refer to these as our financed emissions. As such, we committed to achieving net zero emissions from financing activities associated with renewable energy generation projects by 2030 and aligning the emissions of financing activities designed to decarbonise high emission and non-renewable energy sectors by 2050.

We will provide annual updates, evolving our approach to meet industry best practice and stay in line with the latest climate science.

Initial view of our financed emissions

This year, we have started to expand our scope of emissions accounting by gathering data to enable future reporting of GIG's financed emissions to new standardised approaches. An example of such an emerging approach is the Global GHG Accounting and Reporting Standard for the Financial Industry recently published by the PCAF.[1]

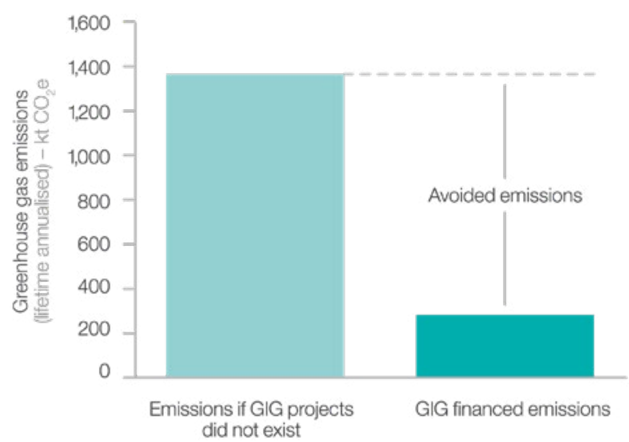
Here, we present an initial overview of our financed emissions, ahead of further information in future Progress Reports.

As we expand our approach to emissions reporting and management, and as an investor active in the initial development and construction of new projects, we have evaluated the lifetime emissions impact of our newly-invested projects in the reporting year.

The bar chart below shows the expected lifetime (annualised) emissions of the new projects in which we invested in 2020/21,[2] referred to as GIG financed emissions, and how these compare to 'counterfactual' emissions – those emissions that would have happened if our projects did not take place.

This also illustrates how our avoided emissions – reported in our green impact overview – represent the difference between the two numbers.

While we will continue to report on these avoided emissions, they will be reported separately and will not contribute towards our net zero commitments, where the focus is strictly on reducing actual financed emissions.



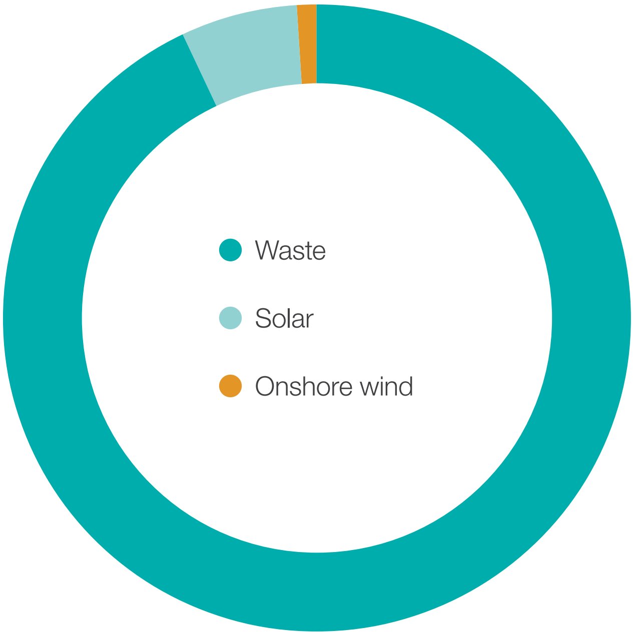
1. The Global GHG Accounting and Reporting Standard for the Financial Industry
2. New investments in the period 1 April 2020 to 31 March 2021 that were post-Final Investment Decision at 31 March 2021 (consistent with Green Impact Statements)

The pie chart illustrates the sector breakdown of the lifetime expected emissions of our new projects in the reporting year.

Most emissions in our waste treatment projects are Scope 1 (direct) emissions, whereas the lifecycle emissions from our renewable energy projects (such as wind and solar energy) are predominately Scope 3 emissions arising from manufacture, transport and installation.

Our financed Scope 1 emissions are measured and reported directly to us by our investee projects. For estimating Scope 3 indirect emissions (e.g. solar panel manufacturing) we use a combination of project-specific lifecycle analysis and estimation using industry-standard proxy data.

Sector breakdown of lifetime expected emissions for new projects[2]



Spotlight: Reducing our financed emissions in the waste-to-energy sector

As shown above, waste projects constitute most of our financed emissions, and so this sector is already a focal point in our work.

Much of our ability to decarbonise waste treatment will rely on sector-wide efforts, likely involving new public policy mechanisms to scale-up recycling rates and lower the costs of CCUS retrofits on energy from waste plants. We are already playing an active role in this transition, having commissioned studies to evaluate the viability of CCUS retrofits on our own assets and participating in policy development conversations through key trade associations in the UK.

Despite challenges in decarbonising waste treatment assets, they continue to deliver important social and environmental benefits, contributing to clean and healthy communities and ecosystems around the world. Waste to energy has an important role to play where waste is still landfilled or disposed of illegally.

We are committed to reducing emissions from our waste to energy assets and as we explore and implement solutions for our existing and future investments, we will continue to support new waste treatment infrastructure around the world.

Decarbonising the waste sector

While waste-to-energy projects reduce emissions from waste significantly, compared to the landfills that they displace, there is still much more to do to decarbonise these assets. The costs of decarbonising energy from waste plants, for example by fitting carbon capture technologies, have been calculated at £140-260/tCO_2e in the UK – which will require new policy support mechanisms to maintain the commercial viability of these projects.[3]

Lower emissions waste management systems such as recycling are not keeping up with the scale of the challenge. Recycling rates in the UK have plateaued at around 44% in recent years.[4] Accelerating recycling rates in Europe and making recycling assets commercially viable for the private sector will require important changes in policy support mechanisms in the coming years.

Landfills remain the highest emitting source of emissions in the waste sector. Thanks to significant reductions in waste going to landfill, the UK has reduced emissions by 63% since 1990 – this was achieved in great part thanks to waste to energy assets.[5]

Looking ahead

We have conducted initial reviews to identify where our immediate priorities lie on the path to net zero.

As a first step, we will work with our projects and partners to enhance our existing green impact data collection by ensuring we are collecting a wider set of reliable data on our financed emissions, focussing on those areas where we currently estimate Scope 3 emissions, such as equipment manufacturing, project construction, and project operations and maintenance – to ensure we are identifying and addressing all sources of emissions.

We will use this additional data on project emissions to inform our investment decision-making alongside our existing green impact evaluation approach set out in our Green Investment Policy. We are also working across investment teams in GIG and Macquarie Group to model the financial impacts of emissions-reducing technologies such as carbon capture and ensure we can identify commercially viable solutions for our existing assets and future projects.

We will continue our involvement with industry initiatives such as the Sustainable Markets Initiative to contribute to defining and consolidating best practice on net zero for the sector.

3. Element Energy modelling used by the Committee on Climate Change, The Sixth Carbon Budget – Waste, 2020
4. European Environment Agency data
5. Committee on Climate Change, The Sixth Carbon Budget – Waste, 2020

Green impact overview

GIG has maintained a market-leading approach to measuring and reporting the green impact of our investments since our inception. Our Green Impact Advisory team, which consists of recognised global expertise and leadership in climate science, green finance, climate policy and sustainability, is responsible for evaluating all our principal investment activities against GIG's Green Investment Policy.

This rigorous evaluation ensures all GIG investments meet our green objective by contributing positively to at least one of GIG's Green Purposes. We also confirm the alignment of our portfolio companies and MGREF1 and MGREF2 activities (see Funds under management for details) with our Green Objective and the Green Investment Policy.

In addition to assessing GIG's investment activities, we continue to deliver our green impact services to clients and partners, often in partnership with our advisory colleagues across Macquarie. This year we have delivered scalable green impact data reporting for a number of investors and fund managers, and our engagements on developing green frameworks for green debt instruments and investment decision-making have evolved to account for the changing landscape of sustainability standards, such as the EU Sustainable Finance Disclosures Regulation, and EU and other taxonomies for sustainable activities.

Reporting our green impact and metrics

We maintain the same robust and consistent approach to accounting and disclosure of green impact metrics as applied in previous years, reporting performance in our green impact statements. This year's reporting also maintains the new disclosures introduced in 2020, where we added reporting of our qualitative contributions to all five Green Purposes – through our Green Ratings – to our existing quantitative green impact statements.

As part of our commitment to maintaining a market-leading approach we commissioned Arup to undertake an independent review of our methods and identify next steps for their development. Whilst the Green Purposes have remained unchanged, following this review and working with the GPC trustees, we developed updated definitions of the five Green Purposes to provide greater clarity. These updated definitions can be found in our Green Investment Principles or Green Investment Policy, both of which can be found on the GIG website.

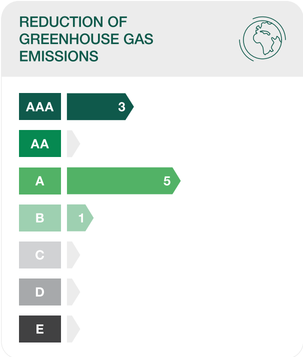
We've also reviewed our methodologies to ensure they remain robust and appropriate for investments in new technologies, such as e-mobility charging, battery storage and hydrogen, as well as readying for investment evaluations in CCUS.

Our green impact reporting is for the period 1 April 2020 to 31 March 2021.

Green ratings

Our ratings approach for the reporting period is consistent and comparable with our first disclosures of these ratings last year, although we are currently in the process of revisiting and updating our approach in light of the findings of the independent benchmarking review undertaken by Arup.

We use our green ratings against all five of our Green Purposes to inform our investment decisions – 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 FID or later, in accordance with our Green Impact Reporting Criteria). The graphic below indicates the number of projects assigned to each rating.



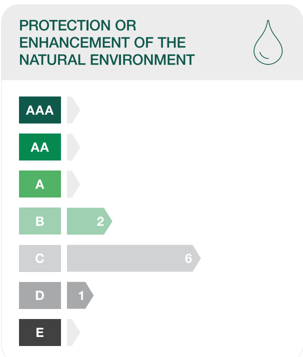
Reduce greenhouse gas emissions

- All of the projects in which we invested in 2020/21 are forecast to result in reduced greenhouse gas emissions.
- Projects achieving higher green ratings for this Green Purpose are located in countries with higher grid emissions (e.g. Poland and Australia) and are technologies with lower embedded project emissions (e.g. onshore wind).
- The metric reported for this Green Purpose is lifetime greenhouse gas emissions avoided (kt CO_2e).

Advance natural resource efficiency

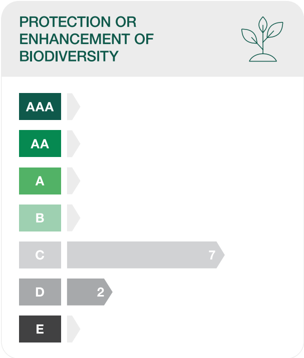
All of the 2020/21 projects are forecast to advance resource use efficiency.

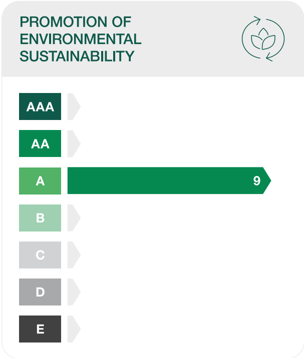
- Projects achieving higher ratings have greater displacement of natural resource consumption.
- Metrics reported for this Green Purpose are:
- renewable energy generation (GWh)
- energy consumption avoided (GWh)
- materials recovered for recycling (kt)



Protect or enhance the natural environment

- Most of the 2020/21 projects are anticipated to have no significant or minor adverse effects on the local natural environment, following environmental mitigation measures.
- Two projects are expected to contribute positively to protection of the natural environment by diverting waste from landfill.
- The metric reported for this Green Purpose is landfill avoided (kt).





Protect or enhance biodiversity

- None of the 2020/21 projects are expected to contribute directly to biodiversity protection or enhancement.
- With biodiversity net gain principles being adopted in countries such as the UK, we expect to report a positive contribution to this Green Purpose in the 2021/22 Green Ratings summary.
- Adverse effects on biodiversity have been mitigated to the fullest extent possible, with residual effects deemed acceptable by planning and permitting authorities for each project.
- The majority of projects are anticipated to result in minor or no significant adverse effects on biodiversity, following mitigation and compensatory measures, but some will have moderate adverse effects.
- Where there is uncertainty over impacts – e.g. disturbance of mammals and birds during onshore wind construction and operation – we conservatively assume more severe impacts until mitigation measures are implemented.

Promotion of environmental sustainability

- While the other Green Purposes encompass direct environmental sustainability improvements, this Green Purpose addresses indirect effects of projects to facilitate, stimulate or promote environmentally beneficial action.
- All of our projects are expected to make a positive contribution to indirect promotion of environmental sustainability.

Green impact statements

The green impact statements below indicate the principal quantifiable environmental benefits arising from our investments into projects that have reached FID.

The green impact of all of our projects – 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. We do not report green impact for projects into which we have only provided development funding at this stage, due to the relative uncertainty over potential future green impact. More information on GIG's methodology can be found in GIG's Green Impact Reporting Criteria 2020/21, a copy of which is published on GIG's website.

Selected totals for data in the green impact statements in respect of the financial year 2020/21 have been independently assured by Deloitte in accordance with the Independent Assurance Report. The reporting period for the green impact statements is April 2020 to March 2021.

Lifetime green impact metrics

	Additional lifetime green impact from investments made in 2020/21	**Lifetime green impact from all investments made to date**
Greenhouse gas emissions avoided (kt CO_2e)	28,734	222,009
Renewable energy generated (GWh)	35,115	589,691
Energy demand reduced (GWh)	0	3,959
Materials recycled (kt)	4,402	40,188
Waste to landfill avoided (kt)	19,266	134,077

Reduction of greenhouse gas emissions

Estimated lifetime GHG emissions reduction of new GIG investments in the reporting period	year ended 31.03.21 kilotonnes CO_2e	year ended 31.03.20 kilotonnes CO_2e
Offshore wind	0	32,925
Waste	13,974	2,172
Energy efficiency	0	0
Bioenergy	0	0
Onshore wind	13,546	593
Solar	1,214	1,422
Total	**28,734**	**37,112**

Estimated lifetime GHG emissions reduction of all GIG investments to date	year ended 31.03.21 kilotonnes CO_2e	year ended 31.03.20 kilotonnes CO_2e
Offshore wind (note 4)	73,960	78,990
Waste	49,683	35,899
Energy efficiency	2,277	2,277
Bioenergy	67,302	67,302
Onshore wind	25,999	12,372
Solar	2,788	1,422
Total	**222,009**	**198,262**

Generation of renewable energy

Estimated lifetime renewable energy generated by new GIG investments in the reporting period	year ended 31.03.21 GWh	year ended 31.03.20 GWh
Offshore wind	0	75,332
Waste	8,468	4,797
Energy efficiency	0	0
Bioenergy	0	0
Onshore wind	23,567	9,696
Solar	3,080	4,064
Total	**35,115**	**93,889**

Estimated lifetime renewable energy generated by all GIG investments to date	year ended 31.03.21 GWh	year ended 31.03.20 GWh
Offshore wind (note 4)	168,433	182,462
Waste	74,486	66,617
Energy efficiency	1,265	1,265
Bioenergy	222,359	222,359
Onshore wind	115,554	91,571
Solar	7,584	4,064
Total	**589,691**	**568,338**

Energy demand reduction

Estimated lifetime energy demand reduced by new GIG investments in the reporting period	year ended 31.03.21 MWh	year ended 31.03.20 MWh
Electricity	0	0
Heating fuels	0	0
Total	**0**	**0**

Estimated lifetime energy demand reduced by all GIG investment to date	year ended 31.03.21 MWh	year ended 31.03.20 MWh
Electricity	1,800,459	1,800,459
Heating fuels	2,158,799	2,158,799
Total	**3,959,258**	**3,959,258**

Recycling of materials

Estimated lifetime materials consumption avoided through materials recycling by new GIG investments in the reporting period	year ended 31.03.21 tonnes	year ended 31.03.20 tonnes
Compost	0	0
Digestate (PAS 110)	0	0
Compost-like output	0	0
Plastics-mixed	0	0
Ferrous metals	253,200	94,500
Non-ferrous metals	247,600	199,500
Paper/card	0	0
Glass	0	0
Mineral aggregates	3,900,775	1,764,840
Waste electrical and electronic equipment (WEEE)	0	0
Other	0	0
Total	**4,401,575**	**2,058,84**

Estimated lifetime materials consumption avoided through materials recycling by all GIG investments to date	year ended 31.03.21 tonnes	year ended 31.03.20 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	1,536,918	1,297,798
Non-ferrous metals	811,432	580,695
Paper/card	654,299	654,299
Glass	9,424	9,424
Mineral aggregates	20,708,365	17,039,461
Waste electrical and electronic equipment (WEEE)	34,328	34,328
Other	6,146,348	6,146,348
Total	**40,187,771**	**36,049,010**

Avoidance of waste to landfill

Estimated lifetime energy demand reduced by new GIG investments in the reporting period	year ended 31.03.21 tonnes	year ended 31.03.20 tonnes
Biodegradable waste	14,927,152	7,079,100
Non-biodegradable waste	4,339,073	3,099,060
Total	**19,266,225**	**10,178,160**

Estimated lifetime waste to landfill avoided by all GIG investments to date	year ended 31.03.21 tonnes	year ended 31.03.20 tonnes
Biodegradable waste	90,463,803	76,384,290
Non-biodegradable waste	43,612,945	39,687,791
Total	**134,076,748**	**116,072,081**

Notes on the statements

YEAR-ON-YEAR CHANGES TO ESTIMATED LIFETIME GREEN IMPACT

The table below shows how the lifetime green impact at the end of 2020/21 compares to that at the end of 2019/20, and provides a breakdown of the changes. In summary, these changes in lifetime green impact were caused by:

- Non-material corrections – during the process to quantify the 2020 performance of the Dublin energy from waste project a minor error in the modelled assumptions was identified, leading to a non-material correction to the actuals data in the periods 2018/19 and 2019/20. These data were corrected and reflected in the lifetime green impact metrics.
- New investments made in the period – GIG invested in and developed beyond FID, 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, projects in solar, onshore wind and energy from waste sectors. These include portfolios of solar projects in the UK (with Amazon, Tesco and Anglian Water), solar projects in Spain (Bolotana A) and Japan (Matsukawa), onshore wind projects (Tysvaer, Norway; Lal Lal, Australia; Jozwin and Scieki, Poland) and energy from waste projects (Protos, UK; Avertas, Australia).
- Removal of estimated remaining lifetime of exited assets that were acquired as operational – in line with GIG's Green Impact Reporting Criteria, 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 2020/21 figures.
- Existing projects' variation of performance/ reforecasts from last year forecasts
  – Where project performance varies >10 per cent from forecasts, GIG takes an average of past performance and, where relevant, pre-operational forecasts to estimate the remaining lifetime green impact.
  – Where GIG's equity stake changes in assets that were acquired as operational, the change in remaining lifetime green impact, in line with GIG's Green Impact Reporting Criteria, is reflected in this re-forecast. This was done on the East Anglia One project, where GIG's equity stake went from 40% at the end of 2019/20 to 20% at the end of 2020/21.

EQUATOR PRINCIPLES

In the reporting period, GIG did not make any investments to which the Equator Principles apply. The Equator Principles are not applicable to equity investments. There is no change to applicability under Equator Principles 4.

Estimated lifetime green impact of all GIG investments to date – year on year changes	GHG emissions reduction kilotonnes CO_2e	Renewable energy generated GWh	Energy demand reduced MWh	Matericals recycled tonnes	Waste to landfill avoided tonnes
Year ended 31.03.20	**198,241**	**568,243**	**3,959,258**	**36,007,402**	**115,843,210**
Revised 31.03.20 following non-material corrections (note 1)	**198,262**	**568,338**	**3,959,258**	**36,049,010**	**116,072,081**
New investments made in the period (note 2)	28,734	35,115	0	4,401,575	19,226,225
Projects cancelled in the period	0	0	0	0	0
Removal of estimated remaining lifetime of assets exited in the period that were acquired as operational (note 3)	(191)	(479)	0	(266,073)	(1,261,558)
Variation of forecast remaining lifetime and actuals from last year's forecast (note 4)	(4,796)	(13,283)	0	3,259	0
Year ended 31.03.21	**222,009**	**589,691**	**3,959,258**	**40,187,771**	**134,076,748**

Independent assurance report

Independent Assurance Report to the UK Green Investment Bank Limited on Green Impact Data and the application of Equator Principles within the Progress Report

To: the Directors of UK Green Investment Bank Limited

We have been engaged by the Directors of the UK Green Investment Bank Limited ("GIB") to conduct a limited assurance engagement over specified Assured Disclosures. The Assured Disclosures comprise Green Investment Group ("GIG")'s performance-related Green Impact Data ("Green Impact Data") and the application of Equator Principles within the GIG Progress Report for the year ended 31 March 2021.

Our conclusion

Based on our work as described in this report, nothing has come to our attention that causes us to believe that the Assured Disclosures, which have been prepared in accordance with the GIG Green Impact Reporting Criteria and Equator Principles Reporting Criteria (the "Reporting Criteria"), materially misstate the Green Impact for the year ended 31 March 2021. The data have been prepared on the basis of the methodology set out in the respective GIG Reporting Criteria which can be seen on the GIG website.

Responsibilities of the Directors

The Directors are responsible for preparing the GIG Progress Report, including the following Assured Disclosures:

Green Impact Data

Estimated lifetime performance for new GIG investments in the reporting period and all GIG investments to date as at financial year end.

- Greenhouse gas (GHG) emissions reduction (kilotonnes CO2e)
- Renewable energy generated (GWh)
- Energy demand reduced (MWh)
- Materials consumption avoided through materials recycling (tonnes)
- Waste to landfill avoided (tonnes)

Equator Principles

Total number of Project Finance transactions and Project-Related Corporate Loans that reached financial close within the reporting period, to which the Equator Principles apply (absolute).

Responsibilities of the assurance provider

Our responsibility is to express a conclusion on the selected subject matter based on our procedures. We conducted our engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board. This standard requires that we comply with the independence and ethical requirements and to plan and perform our assurance engagement to obtain sufficient appropriate evidence on which to base our limited assurance conclusion. We performed the engagement in accordance with Deloitte's independence policies, which cover all of the requirements of the International Ethics Standards Board for Accountants ("IESBA") Code of Ethics and the Financial Reporting Council ("FRC") Revised Ethical Standard 2019 and in some areas are more restrictive. The firm applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Our engagement provides limited assurance as defined in ISAE 3000 (Revised). The evidence gathering procedures for a limited assurance engagement are more limited than for a reasonable assurance engagement, and therefore 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.

Our procedures consisted primarily of:

- interviewing managers at GIG's offices, including those with operational responsibility for the preparation of the Assured Disclosures and application of Equator Principles.
- evaluating the processes and controls for managing, measuring, collating and reporting the Assured Disclosures, including the application of the methodology within the Reporting Criteria to underlying assumptions; and
- testing a representative sample of Green Impact Data and Equator Principles applicable deals, selected on the basis of their inherent risk and materiality to the Green Impact Data. The focus of our testing is the work undertaken by GIG to prepare the Assured Disclosures based on information supplied by GIG's clients, projects or fund managers or collected within GIG. We have not carried out any work to verify that information, nor have we conducted site visits.

Our report is made solely to GIB, in accordance with ISAE 3000 (Revised). Our work has been undertaken so that we might state to GIB those matters we are required to state in this report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than GIB for our work, this report, or for the conclusions we have formed.

Inherent limitations

Since the Estimated Lifetime Green Impact Data are based on assumptions about the future which cannot be predicted with certainty, as with any predictions about the future, the actual future Green Impact Data may be more or less than the stated Estimated Lifetime Data.

GIG does not receive project data or conduct further estimations following the exit date from an investment.

With respect to disposals, GIB processes do not require reconciliation between: the operating assumptions on which Estimated Lifetime Green Impact Data is based; and asset actual or expected performance data (if any) stated in investment disposal documentation. Consequently we rely on written management representations to confirm that Estimated Lifetime Green Impact Data with respect to disposed-of investments is based on the best information available to GIB management at the point of disposal.

Independence

We performed the engagement in accordance with Deloitte's independence policies, which cover all of the requirements of the International Federation of Accountants' Code of Ethics and in some areas are more restrictive. The firm applies the International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Deloitte LLP

Deloitte LLP

4 October 2021

Keeping in touch

We believe it's important to keep talking about the work we are doing to accelerate the green transition and to use our voice to amplify the work of others who are aligned with our mission to tackle the climate emergency. We regularly share updates about our activities on our website and social media channels, as well as highlighting the work of other organisations and initiatives that we are involved in.

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