

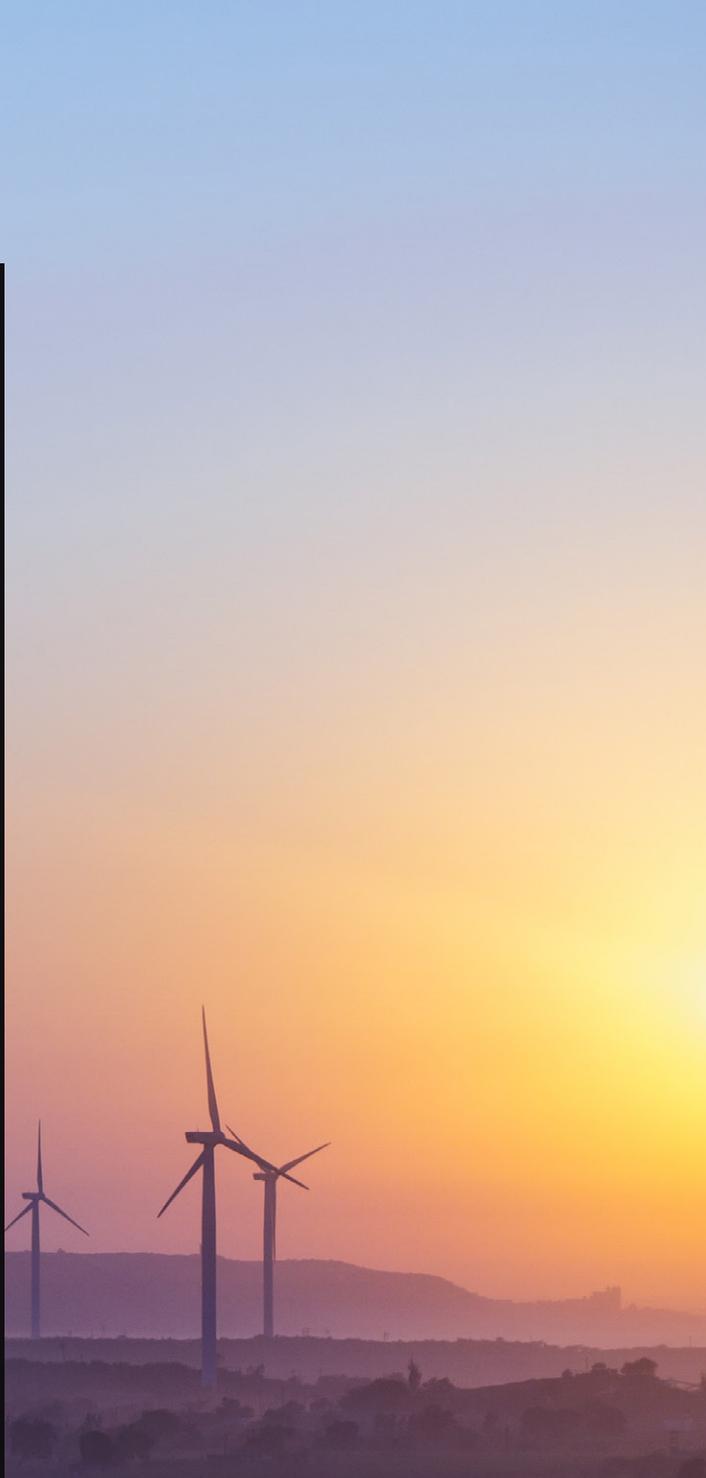
# Green Finance Impact Report

**2022**



# Table of contents

<b>Introduction</b>	<b>3</b>
<b>Key highlights</b>	<b>4</b>
<b>Summary of green metrics</b>	<b>5</b>
<b>Macquarie's green financing transactions</b>	<b>7</b>
<b>Approach</b>	<b>9</b>
<b>Green impact</b>	<b>11</b>
<b>Macquarie's green capabilities and commitments</b>	<b>13</b>
<b>Glossary</b>	<b>14</b>
<b>Appendix A: GIG Green Impact Report</b>	<b>15</b>
<b>Appendix B: PwC Assurance Report</b>	<b>25</b>



# Introduction

Macquarie Group Limited (“Macquarie” or “MGL”) is pleased to present its Green Finance Impact Report for the 12 months to 31 March 2022.

This report relates to the MGL 2018 £2,100 million Sterling (refinanced for £900 million in 2021), and 2020 \$US300 million Samurai loan facilities, of which £250 million and \$US150 million constitutes green financing (“green tranches”) respectively as at 31 March 2022. It provides information on the environmental benefits (“green impact”) of the eligible projects<sup>1</sup> which have been notionally allocated<sup>2</sup> green tranche financing.

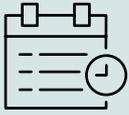
The approach presented in this report is consistent with Macquarie’s Green Finance Framework (“GFF”) which was developed in accordance with the APLMA<sup>3</sup> Green Loan Principles. Macquarie has utilised the expertise of its Green Investment Group (“GIG”) Green Analytics Team to demonstrate the green impact of its eligible projects. The full Impact Report is available in Appendix 1.

Macquarie’s Green Investment Group (GIG) is a specialist green investor and a global leader in the development of companies, assets and technologies that aim to accelerate the global transition to net zero.



1. See glossary for definition of eligible project.  
 2. See glossary for definition of notional allocation.  
 3. Asia Pacific Loan Market Association.

# Key highlights on Macquarie’s green financing



Eight individual projects across Australia, Europe, and Asia were allocated green financing



The Green Finance Framework has been developed in accordance with the APLMA Green Loan Principles



A\$0.6b<sup>4</sup> equivalent of green financing drawn at 31 March 2022 from 24 financiers across the globe



GIG Carbon Score: 2,225 AA<sup>5</sup>



The portfolio is forecast to produce over 5,700 GWh per year, enough to power the equivalent of over ~1.1 million households<sup>6</sup>



The portfolio<sup>7</sup> is forecast to avoid greenhouse gas emissions of 2,225 kt CO<sub>2</sub>e per year, equivalent to taking over ~730,000 cars off the road<sup>8</sup>



Finance was allocated to eligible projects in development, construction, or operations with renewable energy generation capacity of over 1,642 MW



Independent Assurance provided by PwC over Macquarie’s compliance with the Green Finance Framework



East Anglia ONE Offshore Wind farm

4. £250 million and \$US150 million converted to AUD at March 31st 2022 FX rates.  
 5. For renewable energy projects, the GIG Carbon Score is a measure of a project’s lifecycle GHG emissions compared to the emissions of energy taken from the local grid, where 2,225 comprises the forecasted kt CO<sub>2</sub>e avoided per year of the assets which have received funds; and the AA is the Carbon rating, which is a measure of a project’s lifecycle greenhouse gas emissions compared to the emissions of the counterfactual. Projects with the lowest lifecycle emissions relative to the counterfactual would score the highest ratings from AAA to B.  
 6. Home powered equivalents statement provided by Green Investment Group calculated using country specific average electricity consumption per electrified household 2020 data  
 7. The portfolio refers to the eight eligible projects which were allocated green financing throughout the reporting period.  
 8. Calculated using a petrol car based on data from UK Government Greenhouse gas reporting conversion factors. See [www.gov.uk/government/collections/government-conversion-factors-for-company-reporting](https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting) for further detail.

# Summary of green metrics

Throughout the reporting period eight projects were allocated funding from the green tranches, delivering a significant green impact and achieving a Carbon Score of 2,225 AA.

Throughout this report the green impact and associated metrics:

1. incorporate all the eligible projects which have been notionally allocated green tranche financing from 1 April 2021 to 31 March 2022 (the “portfolio”). This is in line with the Green Loan Principles and allows full transparency and disclosure of each project that has been supported by the green tranches.
2. reflect the total green impact derived from 100% of those projects that have been notionally allocated green tranche financing, and not just the proportional impact of the green tranches. This approach has been adopted, as the GFF’s ‘Management of proceeds’ described on page 10 does not support proportional allocation due to the revolving allocation of the use of proceeds (i.e. as above, projects may not necessarily be supported by the facility for the entire reporting period).

## GIG Carbon Score

The GIG Carbon Score is GIG’s standard for communicating the impact of low carbon infrastructure in helping to reduce greenhouse gas emissions. While other measures of GHG emissions only consider the emissions produced during a project’s operational phase, the GIG Carbon Score also considers the emissions across the project’s entire lifecycle.

The rating shows the aggregated GIG Carbon Score for Macquarie’s green tranches is 2,225 AA. The rating of AA reflects the low lifecycle carbon intensity of the wind power projects notionally allocated funding, and the mix of project locations in lower carbon intensive grids (e.g. UK and Sweden) and higher carbon grids (e.g. Taiwan and Poland). Projects located in countries with higher carbon intensive grids achieve higher ratings, reflective of the effectiveness of GHG emissions reduction.

The GIG Carbon Score also shows the quantified greenhouse gas emissions avoided 2,225 kt CO<sub>2</sub>e/yr, which indicates the portfolio lifecycle emissions avoided relative to the counterfactual (a scenario in which the projects were not built).<sup>9</sup> This globally applicable approach allows investors to compare the relative performance of projects using an emissions avoided measure. Full details of the GIG Carbon Score methodology is provided within the Green Impact Report in Appendix 1.

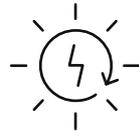


9. For renewable energy projects, the GIG Carbon Score is a measure of a project’s lifecycle GHG emissions compared to the emissions of energy taken from the local grid.

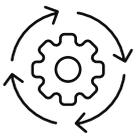
### Portfolio renewable energy capacity



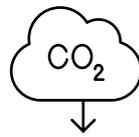
**376 MW**  
of renewable energy in construction



**1,265 MW**  
of renewable energy in operation



The portfolio is forecast to produce over **5,700 GWh** per year, enough to power the equivalent of over **1.1 million households**<sup>10</sup>



The portfolio is forecast to avoid greenhouse gas emissions of **2,225 kt CO<sub>2</sub>e** per year, equivalent to taking over **730,000 cars off the road**<sup>11</sup>



 Hornamossen Wind farm

10. Home powered equivalents statement provided by Green Investment Group calculated using country specific average electricity consumption per electrified household 2020 data.

11. Calculated using a petrol car based on data from UK Government Greenhouse gas reporting conversion factors. See <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting> for further detail.

# Macquarie's green financing transactions

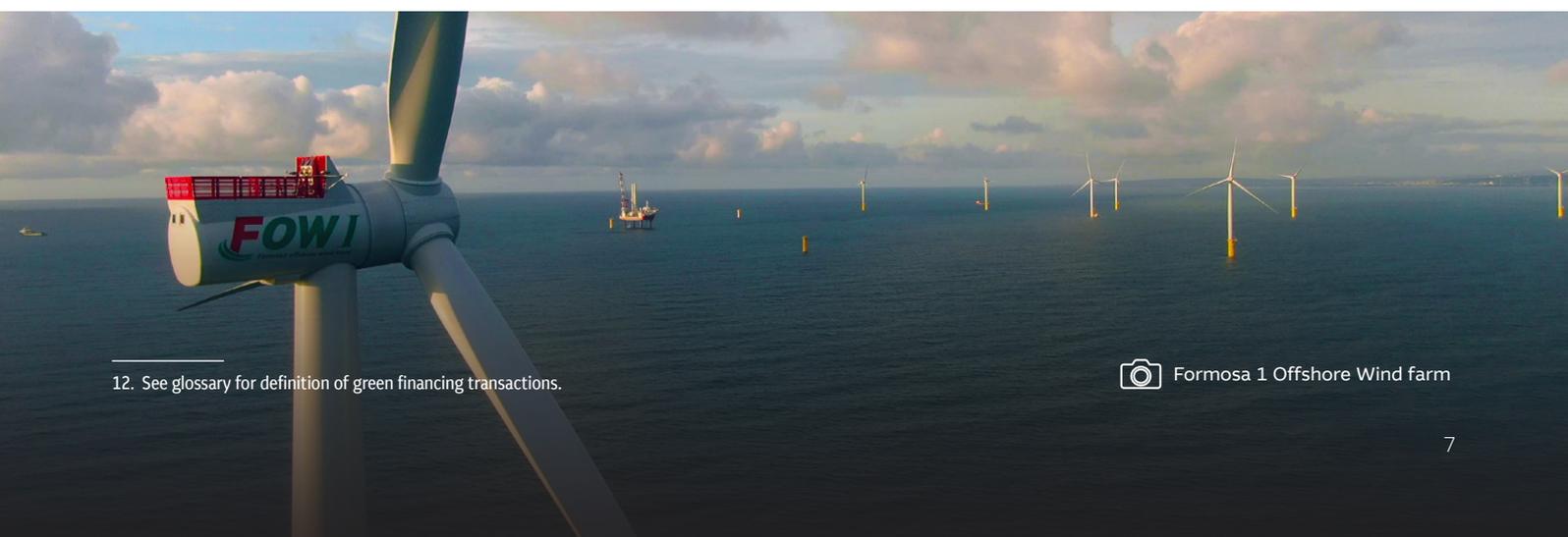
Climate change and the associated legislative and regulatory responses present significant challenges for society and the global economy. Green financing has an important role to play in supporting the global energy transition, and investor appetite for these products is rising.

In June 2018, Macquarie issued a £2,100 million loan facility of which £500 million constituted green financing. £250m of Green financing was returned in April 2020 upon prepayment of the 3yr tranches of this facility. The 5yr tranches of the 2018 facility were refinanced in October 2021 for £900m, retaining £250m in green financing. In March 2020, Macquarie issued its second green financing facility, a \$US300 million facility into the Japanese market. Of this, \$US150 million constitutes as green financing.

The green tranches were issued in accordance with Macquarie's GFF. The GFF was established to demonstrate how Macquarie and its entities intend to enter into green financing transactions<sup>12</sup> to fund projects that will deliver environmental benefits to support Macquarie's business strategy.

The details of Macquarie's green tranches are as below:

	Macquarie GBP Facility (2018)	Macquarie GBP Facility (2021)	Macquarie USD Samurai Facility
Tranche	Tranche B1	Tranche A	Tranche A
Issuer	Macquarie Group Limited	Macquarie Group Limited	Macquarie Group Limited
Issue Date	13 June 2018	27 October 2021	30 March 2020
Original Maturity Date	13 June 2023	1 April 2027	30 March 2025
Prepayment Date	29 October 2021	-	-
Original Tenor	5 years	5.5 years	5 years
Total Volume	£250m	£250m	\$US150m
Structure	Term	Term	Term
Initial Drawdown Date	26 July 2018	29 October 2021	9 April 2020
Drawn Volume as at 31 March 2022	£0m	£250m	\$US150m
Use of Proceeds	In accordance with Macquarie's Green Finance Framework	In accordance with Macquarie's Green Finance Framework	In accordance with Macquarie's Green Finance Framework



12. See glossary for definition of green financing transactions.

## 2022 Green Finance Impact Report

For the reporting period April 2021 to March 2022:

- MGL 2018 GBP Facility Tranche B1 remained drawn at the beginning of the period and allocated to until 29 October 2021 when the facility was fully prepaid.
- MGL 2021 GBP Facility Tranche A was drawn down on 29 October 2021, and was allocated to both on and after this date until the end of the reporting period.
- MGL Samurai USD Facility Tranche A was drawn down and allocated to throughout the entire reporting period.

The eligible projects which have been notionally allocated funding from the green tranches during the reporting period are summarised in the following table.

Eligible projects	Location	Technology	Stage	Percentage of Macquarie Funding <sup>13</sup>	Total Capacity (MW)	Total GHG emissions avoided (kt CO <sub>2</sub> e/yr)
East Anglia One	UK	Offshore Wind	Operational	16% <sup>14,15</sup>	714	997
Formosa 1	Taiwan	Offshore Wind	Operational	50% <sup>14</sup>	128	212
Formosa 2	Taiwan	Offshore Wind	Construction	75% <sup>14</sup>	376	553
Lal Lal Wind Farm	Australia	Onshore Wind	Operational	20%	228	400
Tysvaer	Norway	Onshore Wind	Operational	100%	47	5
Buheii	Norway	Onshore Wind	Operational	100%	80	10
Hornamossen	Sweden	Onshore Wind	Operational	100%	43	6
Jozwin	Poland	Onshore Wind	Operational	100%	25	42
<b>Total</b>					<b>1,642</b>	<b>2,225</b>



 Buheii Wind farm

13. Reflects the share of the projects funded by Macquarie green financing at the time of allocation.

14. There were no variations made to the funding percentage during the reporting period. As at March 2022, Macquarie Funding to East Anglia One, Formosa 1 and Formosa 2 was 12%, 25% and 26% respectively.

15. As at March 2022, Macquarie's interest in East Anglia One was 20%.

# Approach

The GFF, under which the green tranches were issued, was developed in accordance with the APLMA Green Loan Principles. It was supported by a **second opinion external** review by Sustainalytics and was noted to be credible and impactful.

**The framework is based on four core components:**

1. Use of proceeds
2. Process for project evaluation and selection
3. Management of proceeds
4. Reporting

## Use of proceeds

Under the GFF, the use of proceeds of each green financing transaction is notionally allocated against the financing or re-financing of eligible projects which provide clear environmental benefits.

The GFF explicitly recognises several broad categories of eligibility for projects with the objective of addressing key areas of environmental concern such as climate change, natural resources depletion, loss of biodiversity, and air, water and soil pollution.

The proceeds from the green tranches were applied towards financing offshore wind and onshore wind projects across the globe in FY22. Proceeds have also been applied towards solar projects in the past. Going forward, we may extend the use of loan proceeds to support further renewable energy, energy efficiency, waste management, green buildings and clean transportation projects.

Activities and lending to an industry or technology which directly involves fossil fuels, nuclear or biomass suitable for food production are specifically excluded under the GFF.



### Process for project evaluation and selection

Macquarie has established a Green Finance Working Group ("GFWG") which has responsibility for governing and implementing the GFF. The GFWG currently comprises representatives from Macquarie's Environmental and Social Risk ("ESR") team and the GIG Green Analytics team who hold the in-house environmental expertise, as well as representatives from Risk Management Group - Credit, Financial Management Group - Group Treasury and Macquarie's Operating Groups.

Business units will identify potential eligible projects based on the criteria in the GFF's use of proceeds. Potential eligible projects are submitted to the GFWG for review and confirmation that they qualify under the GFF. This includes the preparation of a suitable Green Opinion<sup>16</sup> provided by the GIG Green Analytics team where appropriate.

The Green Analytics team is responsible for confirming that the projects:

- fall within one of the eligible project categories defined in the GFF
- are anticipated to provide clear environmental sustainability and/or climate change mitigation benefits in terms of the contribution to one or more of GIG's Green Purposes<sup>17</sup>.

In addition to meeting the green loan eligibility criteria, all projects are assessed under Macquarie's group wide ESR policy and ESR assessment tool during the investment decision process. The ESR policy and tool provide a robust due diligence process and evaluate ESR issues including labour and employment practices, climate change, human rights, resource efficiency, pollution prevention, biodiversity and cultural heritage. The approach is based on international guidelines including the International Finance Corporation Performance Standards.

### Management of proceeds

The proceeds of the green tranches have not been credited to a dedicated account and are rather deposited in Macquarie's general funding accounts.

We have developed an internal governance process to notionally allocate proceeds against eligible projects in an appropriate manner (as required in the Green Loan Principles). Through the GFWG, Macquarie maintains a register of green financing transactions and eligible projects and has implemented a monitoring and reporting process to ensure that:

- the total funding required<sup>18</sup> for eligible projects is greater than the outstanding principal amounts due on green financing transactions
- eligible projects are owned within the consolidated entity<sup>19</sup> which raises the green financing transaction that is notionally allocated against the eligible projects
- eligible projects do not have other financing (a) secured<sup>20</sup> against them, or (b) attributable to them in respect of another 'use of proceeds' obligation.

### Reporting

This report is designed to outline Macquarie's compliance with the GFF and contain information on the allocation reporting and impacts of outstanding green financing transactions.

The report is publicly available on Macquarie's website and will be revised annually.

### Assurance

PwC has been engaged to provide independent assurance over Macquarie's compliance with the obligations contained within its GFF.

Claims relating to the green impact estimated in relation to the GFF were outside the scope of PwC's assurance engagement.

16. Green Opinion is an opinion provided by the Green Analytics Team on the prospective transaction. It includes information on the anticipated environmental sustainability and/or climate change mitigation benefits of the projects to be financed by the transaction and will be a requirement for any transaction included in the eligible projects' portfolio.

17. As listed in GIG's Green Investment Principles, available from [www.greeninvestmentgroup.com/green-impact](http://www.greeninvestmentgroup.com/green-impact).

18. This is calculated as the legal commitment Macquarie has agreed to invest in an eligible project as reflected in contractual arrangements entered into by Macquarie, irrespective of whether the commitment is drawn or undrawn. This includes, but is not necessarily limited to, the purchase price for an eligible project, the total committed exposure to an eligible project or an equity contribution to an eligible project.

19. Macquarie Group Limited and its subsidiaries.

20. Secured in this instance is defined as projects where external financing is either secured against Macquarie's investment (with no letter of credit in place) or has recourse back to Macquarie.

## Green impact

Macquarie has utilised the expertise of the GIG Green Analytics team to demonstrate the green impact of the proceeds from the green tranches.

In line with the Green Loan Principles, the green impact has been calculated for all the projects to which proceeds have been notionally allocated green tranche financing from 1 April 2021 to 31 March 2022. This allows full transparency and disclosure of each green project that has been supported by the GFF. The full Impact Report is available in Appendix 1.

### Forecasted green impact of eligible projects<sup>21</sup>

#### GHG emissions avoided (carbon dioxide equivalent)

Average annual	2,225	kt CO <sub>2</sub> e / yr
Remaining lifetime	54,480	kt CO <sub>2</sub> e

#### Other emissions to air avoided (oxides of nitrogen)

Average annual	3,482	t NO <sub>x</sub> / yr
Remaining lifetime	88,765	t NO <sub>x</sub>

#### Fossil fuels consumption avoided (oil equivalent)

Average annual	1,071	kt oe / yr
Remaining lifetime	26,155	kt oe



21. The forecasts are based on the total green impact derived from 100% of those projects that have been notionally allocated green tranche financing, and not just the proportional impact of the green tranches.

### Green impact forecast accuracy

Green impact forecast accuracy is an assessment of the level of confidence that can reasonably be placed on the accuracy of any quantified green impact forecast. GIG has assessed the weighted average green impact forecast accuracy for the portfolio at Level 4 (High). The forecasts and green impact forecast accuracy are subject to the methodology, assumptions, limitations and methods set out in Appendix 1.

The majority of the projects within the portfolio are operational and as such, their forecasted performance is based on actual performance of the assets.

This results in a Level 4 (High) green impact forecast accuracy, as opposed to FY21, where many of the projects were still in construction resulting in a forecast accuracy level of 3 (good).

### Level 4 (High)



### The GIG Green Impact Report

The GIG Green Impact Report (Appendix 1), which uses GIG’s robust green impact methodology, provides best-practice green impact performance disclosure. The report has unique features developed using GIG’s proprietary methodology and shows quantified, globally comparable green performance data for a project or portfolio including:

- greenhouse gas emissions avoided, calculated according to the internationally harmonised approach for greenhouse gas accounting<sup>22</sup>
- metrics for avoided fossil fuel consumption (tonnes of oil equivalent), air pollutant emissions (nitrous oxides, oxides of sulphur, particulate matter), and, where applicable, waste to landfill avoided and materials recycled and recovered
- a measure of accuracy of the forecast green impact, derived from project technology type, stage of project development, location of the project/ country governance, and input data quality
- the direct, or indirect performance of the portfolio or project against the UN Sustainability Development Goals and their associated targets.



22. The GHG Protocol for Project Accounting - [www.ghgprotocol.org/standards/project-protocol](http://www.ghgprotocol.org/standards/project-protocol).

# Macquarie's green capabilities and commitments

Macquarie is a global financial services group operating in 33 markets across asset management, retail and business banking, wealth management, leasing and asset financing, market access, commodity trading, renewables development, specialist advice, access to capital and principal investment.

For two decades, we have used our deep capabilities in energy, infrastructure, transportation, technology, agriculture and commodities to work with clients to deliver practical solutions. Macquarie continues to support clients seeking to manage and respond to sustainability challenges and capitalise on emerging opportunities. Drawing on our global network, sector expertise and strong record, Macquarie provides a diverse range of products and services with an ESG focus to corporate, government and institutional clients. Our activities span the investment cycle from research on alternative energy to tailored capital solutions for the development and construction of renewable assets and social infrastructure.

## Our climate strategy

In 2021, Macquarie made a commitment to align our business operations and financing activities with the objective of enabling and accelerating the world's pathway to net zero by 2050.

Last year, we established a dedicated cross-group Net Zero Program team to assess our lending and equity clients' existing climate footprint, and we are on track to release our first net zero plan by the end of 2022.

Granular analysis of our exposures within the oil, gas and coal sectors is well progressed. Over the coming months, we will continue to evolve this in-depth analysis to support the establishment of interim and long-term science-based goals for these sectors. This is in addition to our existing commitment on coal, where we expect our limited remaining equity and lending exposures to run off by 2024. We will expand the analysis to further sectors in 2023.

In addition, Macquarie Asset Management (MAM) has committed to invest and manage its portfolio in line with global net zero by 2040. During FY2022, MAM has been working with its portfolio companies to report and verify their emissions, set targets for emissions reduction, and develop business plans that contribute to a net zero economy by 2040 or sooner.

To accelerate our efforts, effective 1 April 2022, GIG has moved to operate as part of MAM. The need for investment in the energy transition continues to grow substantially. The combined teams will significantly enhance Macquarie's capacity to mobilise institutional capital for the transition and provide greater scale of decarbonisation solutions for clients, portfolio companies, communities, and the environment.

Macquarie's 2025 Sustainability Plan reflects our commitment to further create a positive social and environmental impact across our global operations. In FY2022, the Plan was updated in line with current technical guidance, industry trends and Macquarie's ambition to achieve Net Zero emissions.

## Our capabilities

### Financing and developing

- investment in development projects, platforms and businesses
- debt and equity investment
- asset financing, including demand side management, energy efficient assets, distributed generation and battery storage and electric vehicles

### Advising

- financial advisory
- debt and equity arrangement
- green impact assessment, reporting and ratings

### Managing

- real asset management, including green and social infrastructure, equity and debt, asset finance and real estate
- securities investment management and structured access to funds
- equity-based products and alternative assets

### Trading

- environmental risk management solutions
- access to wholesale energy markets for renewable energy suppliers, retailers and producers
- access to voluntary and compliance carbon markets

### Researching

- specialist ESG and clean energy research
- corporate and investor ESG engagement programs

For more information see [Our green capabilities](#), [2025 Sustainability Plan](#), [macquarie.com/esg](https://macquarie.com/esg) and the ESG pages of our [FY22 MGL Annual Report](#).

## Glossary

CO <sub>2</sub> e	Carbon dioxide equivalent; a unit of measurement used to compare emissions from various green-house gases relative to their global-warming potential.
counterfactual	A scenario in which the eligible projects were not built.
eligible projects	Eligible projects refer to projects which fall within the categories below and which are or have been originated by the various business units of Macquarie. <ul style="list-style-type: none"> <li>• renewable energy</li> <li>• energy efficiency</li> <li>• waste management</li> <li>• green buildings</li> <li>• clean transportation</li> </ul>
ESG	Environmental, Social and Governance
ESR	Environmental and Social Risk
GFF	Macquarie's Green Finance Framework
GFWG	Green Finance Working Group
GHG	Greenhouse Gases
GIG	Green Investment Group
green finance transactions	These include bonds, loans and other debt or financing structures which support eligible projects, as defined in the GFF.
green impact	Environmental benefits of the use of proceeds of the green tranches.
green opinion	Opinion provided by the Green Analytics team on the eligible project. It includes information on the anticipated environmental sustainability and/or climate change mitigation benefits of the project. A green opinion is a requirement for any project to be considered eligible in respect of the green tranches.
green tranches	The tranches of the 2018 MGL GBP 2,100 million, 2021 MGL GBP 900 million and MGL USD 300m Samurai loan facilities which constitute green financing. This includes: <ul style="list-style-type: none"> <li>• Tranche B1 of the 2018 MGL GBP Facility totalling GBP 250 million (until repayment in Oct-21),</li> <li>• Tranche A of the 2021 MGL GBP totalling GBP 250 million (Since establishment in Oct-21); and</li> <li>• Tranche A of the MGL Samurai Facility totalling USD 150 million.</li> </ul>
kt	Kilotonne, equal to 1000 metric tonnes.
legal commitment	The dollar amount Macquarie has agreed to invest in an eligible project as reflected in contractual arrangements, irrespective of whether the commitment is drawn or undrawn. This includes, but is not necessarily limited to, the purchase price for an eligible project, the total committed exposure to an eligible project or an equity contribution to an eligible project.
MAM	Macquarie Asset Management
MW	Megawatt is a unit for measuring electrical power, equal to one million watts
notional allocation	The allocation of outstanding green financing to eligible projects at any point during the reporting period (not just as at 31 March 2022) irrespective of whether the legal commitment of the eligible project is drawn. While notional allocations can be made against undrawn funding, we have been careful to allocate against drawn balances only in order to ensure the greatest green impact.
PPAs	Power purchase agreements
SDGs	United Nations Sustainable Development Goals
reporting period	The period from April 2021 to March 2022



Green  
Investment  
Group

# Appendix A

**GIG Green Impact Report:  
Macquarie Sterling and Samurai Loan facilities**

# 1. Introduction

The Green Analytics team of Green Investment Group ('GIG') has prepared this Green Impact Report (the 'Report') in connection with the Macquarie Group Limited ('MGL') 2018 GBP 2,100 million Sterling (refinanced for £900m in 2021), and 2020 USD 300 million Samurai loan facilities; of which GBP 250 million and USD 150 million constitutes green financing ('green tranches') respectively. This Report covers those projects (the 'Projects') that were supported by the green tranches between 1 April 2021 and 31 March 2022 (together, the 'Portfolio'). The Green Analytics team has analysed the performance and forecast the Portfolio's avoided greenhouse gas ('GHG') emissions; emissions to air; and fossil fuels consumption (together, the 'Green Impact'), as summarised below. The forecasts are based on the total Green Impact derived from 100% of the Projects that have been notionally allocated green tranche financing. This Report also considers the Portfolio's alignment with the United Nations Sustainable Development Goals.

The Portfolio's GIG Carbon Score is 2,225 AA. We have assessed the weighted average Green Impact Forecast Accuracy for the Portfolio at Level 4 (High). Please refer to Appendix 2 for further information on how this is calculated.

The Report is aligned with the reporting recommendations in Section 4 of the Green Loan Principles, February 2021.

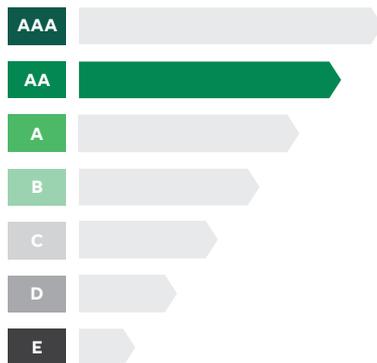
## Portfolio information<sup>1</sup>

Operational projects	7
Construction projects	1
Offshore wind capacity (MW)	1,218
Onshore wind capacity (MW)	424



GIG  
CARBON SCORE

**2,225 AA**



**2,225 kt CO<sub>2</sub>e**  
AVOIDED (ANNUAL AVERAGE)

## Green impact: forecast performance

### GHG emissions avoided (carbon dioxide equivalent)

Remaining lifetime	54,480 kt CO <sub>2</sub> e
Average annual	2,225 kt CO <sub>2</sub> e / yr

### Other emissions to air avoided (oxides of nitrogen)

Remaining lifetime	88,765 t NO <sub>x</sub>
Average annual	3,482 t NO <sub>x</sub> / yr

### Fossil fuels consumption avoided (oil equivalent)

Remaining lifetime	26,155 kt oe
Average annual	1,071 kt oe / yr

Important note: This Report has been prepared by GIG on the basis of, and should be read in conjunction with, the methodology v1.2, assumptions, limitations and other terms set out in Appendices 2, 3 and the Important Notice and Disclaimer, Appendix 4. This is not a due diligence report and should not be relied upon as such. If appropriate, recipients and users of this Report should conduct their own separate environmental, social and governance enquiries and assessments. This Report is provided for information purposes only and does not constitute and shall not be deemed to be in any way an offer or invitation or solicitation of any offer or invitation to sell or purchase shares or invest in any Project. This Report has not been filed, lodged, registered or approved in any jurisdiction and recipients of this document should keep themselves informed of and comply with and observe all applicable legal and regulatory requirements.

<sup>1</sup> Please see Appendix 1 for further details of the projects within the Portfolio.

## 2. Green impact forecast

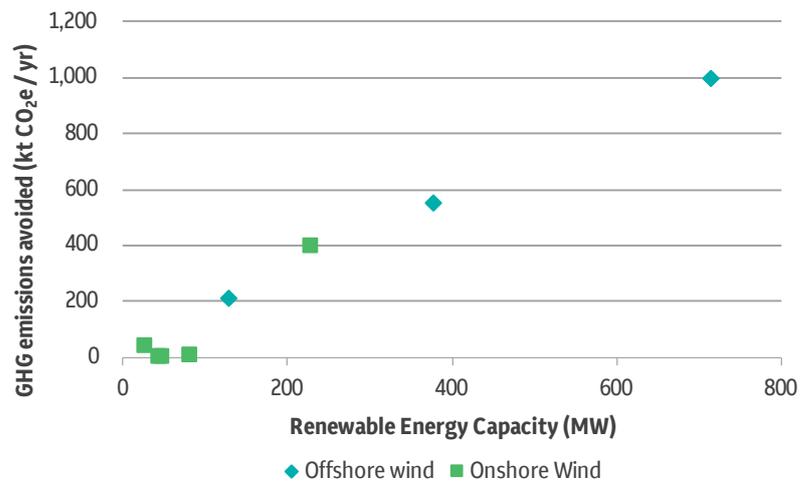
In this Report we use the term ‘Green Impact’ to refer to the GHG, emissions to air and fossil fuels consumption avoided by the Portfolio, as defined in Appendix 2. Forecasts are based on data provided to the Green Analytics team and are subject to our assessment of Green Impact Forecast Accuracy (as set out on page 3). The forecasts and Green Impact Forecast Accuracy are subject to the methodology, assumptions, limitations and methods set out in the Appendices.

### Greenhouse gas emissions avoided

The Portfolio is forecast to avoid nearly 55 million tonnes CO<sub>2</sub>e over the remaining lifetime of the constituent Projects.

Avoidance of GHG emissions (measured in carbon dioxide equivalent: CO<sub>2</sub>e), both actual and forecast, is derived by comparing the emissions associated with each underlying Project to a counterfactual (alternative method of energy generation). In this case, the counterfactual is local marginal electricity grid emissions where the Project is located.

### The Portfolio is forecast to avoid emissions of 2,225 kt CO<sub>2</sub>e / yr



### Greenhouse gas emissions avoided (carbon dioxide equivalent)

Remaining lifetime	54,480 kt CO <sub>2</sub> e
Average annual	2,225 kt CO <sub>2</sub> e / yr

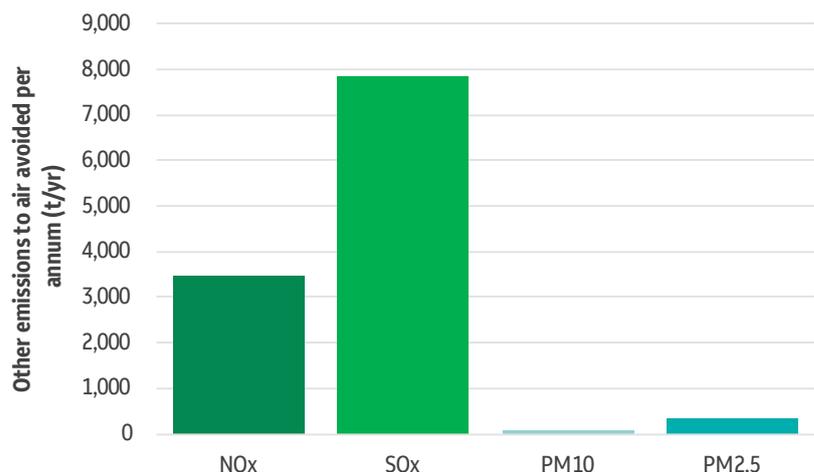
### Other emissions to air avoided

The Portfolio is forecast to result in the avoidance of nearly 3,500 tonnes NO<sub>x</sub>, nearly 8,000 tonnes SO<sub>x</sub> and over 400 tonnes of particulate matter per year.

Other emissions to air avoided is a measure of net air pollutant emissions compared to the counterfactual method of energy generation.

Quantified air pollutant emissions include oxides of nitrogen (NO<sub>x</sub>), oxides of sulphur (SO<sub>x</sub>), particulates up to 2.5 micrometres (µm) in diameter (PM<sub>2.5</sub>) and particulates between 2.5 µm and 10 µm in diameter (PM<sub>10</sub>).

### The Portfolio is forecast to avoid emissions of 3,482 t NO<sub>x</sub> / yr



### Emissions to air avoided

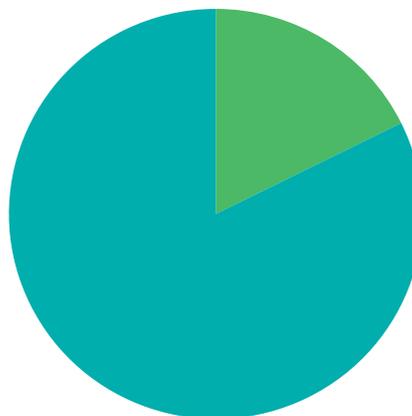
Average annual nitrogen oxides	3,482 t NO <sub>x</sub> / yr
Average annual sulphur oxides	7,856 t SO <sub>x</sub> / yr
Average annual 10µm particulate matter	74 t PM <sub>10</sub> / yr
Average annual 2.5µm particulate matter	335 t PM <sub>2.5</sub> / yr

### Fossil fuels consumption avoided

Fossil fuels consumption avoided is a measure of the net consumption of coal, oil and gas avoided, compared to the counterfactual method of grid-based electricity generation, and is normalised to metric kilotonnes of oil equivalent (kt oe).

The Portfolio is forecast to avoid an average of nearly 1,100 kt oe per year. When the underlying projects are aggregated based on technology, they are anticipated to avoid an average of 881 kt oe per year for offshore wind and 189 kt oe per year for onshore wind.

### The Portfolio is forecast to avoid 1,071 kt oil equivalent annually



■ Onshore Wind      ■ Offshore Wind

#### Fossil fuels consumption avoided

Remaining lifetime	26,155	kt oe
Average annual	1,071	kt oe / yr

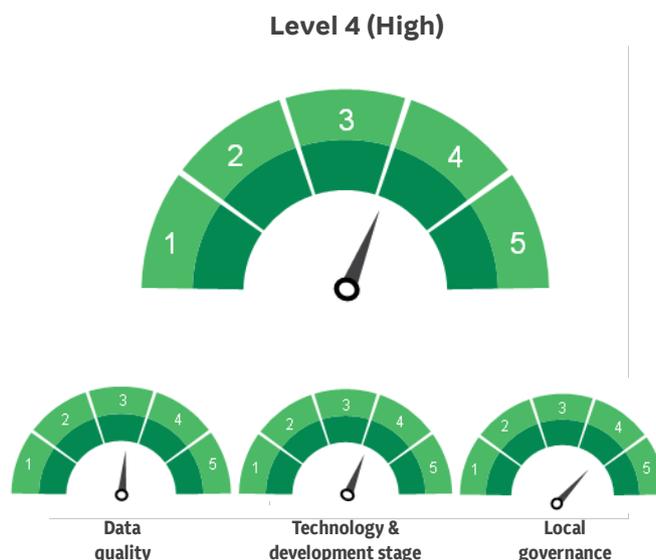
## 3. Green impact forecast accuracy

Green Impact Forecast Accuracy is our assessment of the level of confidence that can reasonably be placed on the accuracy of any quantified of any Green Impact Forecast. It is based on information provided to the Green Analytics team (set out on page 1 and in the methodology referred to in Appendix 2).

We assess Green Impact Forecast Accuracy at levels ranging from Level 1 (Low) to Level 5 (Very High), which represent the combined and weighted average of a series of factors, according to our in-house experience of the sensitivity of each element. See Appendix 2 for further detail.

We have assessed the weighted average Green Impact Forecast Accuracy for the Portfolio at Level 4 (High).

The data quality and development stage scores will increase as more of the Projects become operational and actual performance is known. This will then result in an overall increase in Green Impact Forecast Accuracy.



## 4. Contribution to the Sustainable Development Goals

The United Nations Sustainable Development Goals<sup>1</sup> (SDGs) are a set of 17 goals for sustainable development, defined by 169 SDG Targets to be achieved by 2030. The Green Analytics team has considered the performance of the Portfolio against the SDGs and their associated Targets. The assessment has identified those Targets to which the Portfolio contribute directly (associated SDGs shown as full coloured icons below), and those Targets to which the Portfolio contribute indirectly (inverted coloured SDG icons below).



### Direct contribution



Goal	SDG Target	Contribution
	<b>Target 3.9</b> Reduce deaths and illnesses from air pollution	According to the World Health Organization, air pollutants such as nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ) and particulate matter (PM) can lead to premature death and illnesses such as stroke, heart disease, lung cancer and chronic respiratory diseases. <sup>2</sup> Avoidance of fossil fuel electricity generation due to renewable generation is forecast to avoid average annual emissions of harmful air pollutants of: <ul style="list-style-type: none"> <li>• 3,482 t NO<sub>x</sub> / yr</li> <li>• 7,856 t SO<sub>x</sub> / yr</li> <li>• 74 t PM<sub>10</sub> / yr</li> <li>• 335 t PM<sub>2.5</sub> / yr</li> </ul>
	<b>Target 7.2</b> Increase substantially the share of renewable energy in the global energy mix	The Portfolio accounts for 1,642 MW nameplate capacity for renewable energy generation to the respective local electricity grids.
	<b>Target 9.1</b> Develop quality, reliable, sustainable and resilient infrastructure	

### Indirect contribution

Goal	SDG Target	Contribution
	<b>Target 12.2</b> Achieve the sustainable management and efficient use of natural resources	Avoidance of fossil fuel electricity generation due to renewable generation results in the forecast avoidance of the consumption 1,071 kt oil equivalent annually.
	<b>Target 13.3</b> Improve human and institutional capacity on climate change mitigation	The Portfolio raises awareness and improves institutional capacity on climate change mitigation and negative impact reduction. The Portfolio is forecast to avoid 2,225 kt CO <sub>2e</sub> of greenhouse gas emissions annually.

<sup>1</sup> <http://sustainabledevelopment.un.org/sdgs>

<sup>2</sup> World Health Organization, Ambient air pollution - a major threat to health and climate: <https://www.who.int/airpollution/ambient/en/>

## Appendix 1

### Portfolio: Key Project data<sup>1</sup>

Project Name	Location	Technology	Capacity (MW)	Stage	Calendar year commencement of operations (est. for future dates)
East Anglia One	UK	Offshore Wind	714	Operational	2020
Formosa 1	Taiwan	Offshore Wind	128	Operational	2019
Formosa 2	Taiwan	Offshore Wind	376	Construction	2022
Lal Lal Wind Farm	Australia	Onshore Wind	228	Operational	2022
Tysvaer	Norway	Onshore Wind	47	Operational	2022
Buheii	Norway	Onshore Wind	80	Operational	2022
Hornamossen	Sweden	Onshore Wind	43	Operational	2021
Jozwin	Poland	Onshore Wind	25	Operational	2015

<sup>1</sup> Data correct at 31st March 2022 unless stated otherwise.

## Appendix 2

### Terms and conditions: terminology and methodology

#### Terminology

##### *Green impact*

The Green Impact metrics covered by this Report are identified in the header and executive summary. “Green Impact” is a collective term referring to the environmental benefits which have been calculated in accordance with GIG’s methodology to be, or to be reasonably likely to be, delivered by the project(s) to which this Report refers. The collective term can include defined metrics such as tonnes carbon dioxide equivalent avoided (t CO<sub>2</sub>e), tonnes oil equivalent avoided (toe), and tonnes (t) of other air pollutant emissions avoided.

##### *Green impact forecast accuracy*

“Green Impact Forecast Accuracy” is an expression of the level of confidence that, in the opinion of GIG, can reasonably be placed on the accuracy of any quantified Green Impact forecast. This assessment of forecast accuracy is described in levels as follows: Level 1 (Low), Level 2 (Moderate), Level 3 (Good), Level 4 (High), and Level 5 (Very High).

##### *Methodology v 1.2*

The Green Impact and Green Impact Forecast Accuracy assessments presented in this Report are based on GIG’s approach to assessing Green Impact using the methodologies set out within its proprietary green investment principles, policies and the associated processes of the Green Investment Handbook<sup>1</sup>. The Green Impact assessment has applied proprietary modelling techniques and comparative data developed and owned by GIG, or by third party owners and made available under licence to GIG.

##### *Green impact calculation*

GIG’s initial calculation of the Green Impact of each project is produced by comparing relevant information and data derived from that project against relevant counterfactual (or baseline) data for the assumed environmental impacts that would occur if the project did not

take place, based on GIG’s proprietary reference sources or provided to GIG by relevant third parties or obtained from publicly available sources. The resultant estimated Green Impact is then subject to further qualitative evaluation before production of GIG’s formal Green Impact Report.

For grid-connected projects that generate electricity, the counterfactual is assumed to be marginal electricity generated from the local electricity grid, which includes resources consumed to supply grid electricity. GIG’s methodology calculates the net Green Impact of the project by comparing its likely emissions to those of a marginal grid electricity mix, using the methodology set out in the International Financial Institutions (IFI) approach to GHG accounting for renewable energy projects<sup>2</sup> and the IFI approach to GHG accounting for energy efficiency projects<sup>3</sup>.

GIG’s methodology calculates results for likely Green Impact on an annual and lifetime basis. The Green Impact reported is 100% of the Green Impact of the underlying project(s). There is no proportionate allocation of Green Impact to any particular project investment or to particular investors, all of whom may report the same Green Impact from the underlying project(s).

##### *Exclusions*

The counterfactual of marginal grid electricity does not include the total quantifiable lifecycle environmental burdens (e.g. resources consumed during construction, or indirect emissions during operations such as those from associated transport vehicles) associated with energy generation. Therefore, to produce a valid comparison, the calculation of Green Impact for the project(s) assessed in this Report is based solely on the operational phase of the relevant project(s), and does not include a full lifecycle assessment of the project(s) unless specifically stated otherwise. This approach is aligned with the Greenhouse

Gas Project Protocol<sup>4</sup>. GIG’s assessment does not include a review of any underlying project’s environmental and/or social, permitting, licensing or other compliance status.

##### *Green impact forecast accuracy*

Green Impact Forecast Accuracy is determined from a number of project parameters that include the project technology, stage of project development, and location of the project, together with GIG’s opinion of the input data quality. These parameters have been assigned values that represent the degree to which they affect the accuracy of the forecast Green Impact, and are used to produce Forecast Accuracy scores for three elements: Data quality, Technology & development stage, and Local governance<sup>5</sup>. The Forecast Accuracy scores for the three elements are weighted according to GIG’s in-house experience of the sensitivity of each element and combined to derive an overall level of Green Impact Forecast Accuracy.

##### *Carbon score*

Our Carbon Score shows the quantified greenhouse gas emissions avoided combined with our Carbon Rating. The Carbon Rating is a measure of a project’s lifecycle greenhouse gas emissions compared to the emissions of the counterfactual. Projects with the lowest lifecycle emissions relative to the counterfactual would score the highest ratings from AAA to B. Projects with lifecycle emissions similar to the counterfactual would score a C, and projects with greater emissions would score a D or E. The emissions of the counterfactual are derived from the IFI approaches to greenhouse gas accounting – please see above for details. Where we do not have project-specific information on lifecycle emissions, we use the median harmonised values from the US National Renewable Energy Laboratory’s Lifecycle Assessment Harmonization<sup>6</sup>

<sup>1</sup> [www.greeninvestmentbank.com/green-impact](http://www.greeninvestmentbank.com/green-impact)

<sup>2</sup> [https://unfccc.int/sites/default/files/resource/Renewable%20Energy\\_GHG%20accounting%20approach.pdf](https://unfccc.int/sites/default/files/resource/Renewable%20Energy_GHG%20accounting%20approach.pdf)

<sup>3</sup> [https://unfccc.int/sites/default/files/resource/Energy%20Efficiency\\_GHG%20accounting%20approach.pdf](https://unfccc.int/sites/default/files/resource/Energy%20Efficiency_GHG%20accounting%20approach.pdf)

<sup>4</sup> [www.ghgprotocol.org/standards/project-protocol](http://www.ghgprotocol.org/standards/project-protocol)

<sup>5</sup> Local governance scores are determined from datasets of indicators from the World Bank, Transparency International and United Nations University Institute for Environment and Human Security.

<sup>6</sup> [www.nrel.gov/analysis/sustain-lcah.html](http://www.nrel.gov/analysis/sustain-lcah.html)



## Appendix 3

### Terms and conditions: assumptions, limitations and other terms

#### Disclaimer

Green Investment Group Limited ("GIG") is not authorised or regulated by the Financial Conduct Authority or the Prudential Regulatory Authority or any equivalent regulatory authorities in any other jurisdiction. GIG is not an authorised deposit-taking institution for the purposes of the Banking Act 1959 (Commonwealth of Australia), and GIG's 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.

#### Scope and distribution of this document

GIG has prepared this Report for the exclusive use of the person with whom GIG has contracted to produce it (together with its subsidiaries and affiliates (the "Client")) in connection with the project or projects identified on page 1.

This Report has been prepared on the basis of the scope of work and subject to the terms and conditions set out or referred to in the terms of engagement agreed between GIG and the Client (the "Terms of Engagement"). The Terms of Engagement accordingly apply in full to the provision, receipt and use of this Report.

#### Liability and reliance

Unless GIG has expressly agreed otherwise in the Terms of Engagement, neither GIG nor any of its subsidiaries, holding companies (if any), joint ventures or affiliates (the "GIG Group") nor any of the directors, officers, employees, consultants, shareholders, sub-contractors or advisers of any member of the GIG Group (each of the foregoing being a "GIG Party") shall have or assume any liability whatsoever (whether direct or indirect and whether arising in contract, in tort or otherwise) to the Client or any other person receiving this Report (each a "Recipient"), including any of their affiliated companies, for or in connection with, and no claim shall be made by the Recipient or any other person in relation to, the provision, receipt or use of this Report or any of its contents or any error or inaccuracy in this Report.

Unless GIG has expressly agreed otherwise in the Terms of Engagement: the disclosure to, or receipt by, any person of this Report shall not give rise to any legal or contractual relationship between any GIG Party and such person, nor shall it give rise to any duty or assumption of responsibility in favour of such person; no representation or warranty, express or implied, is made to any Recipient as to the accuracy, completeness or correctness of the information contained in this Report; no Recipient may rely upon the content of this Report and any use of this Report by such Recipient shall be at its own risk; and no GIG Party shall be liable to any Recipient in relation to such use or reliance.

#### Intellectual property rights

All rights are reserved by GIG which, together with its relevant licensors, shall remain the exclusive owners of all intellectual property rights of whatsoever nature subsisting in (1) this Report, (2) any other document or materials provided by any GIG Party in connection with the evaluation of green impact and/or the preparation of this Report, (3) any systems, methodologies, software, algorithms or outputs used produced or developed by or for GIG in connection with this Report or any of its contents, and (4) otherwise made available for use by any person in connection with this Report.

#### Nature of the contents of this Report

The forecasts and assessments expressed in this Report are not ratings: they are, and shall be construed solely as, statements of opinion as to the relative prospects that particular environmental benefits can be achieved by a specified project or other asset that is the subject of any securities or other investment, and not as statements of current or historical or scientific fact, or as an endorsement of the accuracy of any data or conclusion or as any assurance that any environmental impact (either positive or negative) or risk will or will not occur.

The contents of this Report must not be relied upon as being a conclusive, complete or accurate representation of all elements and factors relating to any project. Furthermore, this Report is

not, and shall not be interpreted or construed as, an assessment of the economic performance or creditworthiness of any person or project.

This Report is valid only as at the date of issue based on the information, data and/or documents provided to GIG by the Client or any relevant third party, or obtained using publicly available sources, as at the date of issue and shall not take account of any future information, events or changes with respect to the Client or any other person, any business, any financial instrument, any relevant project or transaction, any financial market or any relevant sector or otherwise (unless this Report is specifically amended at GIG's discretion).

This Report is not an offer or solicitation to buy or sell any investment or product or service, nor is it financial advice or trading advice or any other advice as to the merits of any investment, nor is it a recommendation regarding any investment decision or any decision to purchase, hold or sell any investment.

#### Project data

GIG has relied in good faith on publicly available data and data and information made available in connection with the relevant project(s) by the original Client and/ or relevant third parties, and has assumed that such data and information is complete, accurate and up to date.

GIG may, at its discretion, but is not obliged to, conduct limited validation of the data and information provided by original Client and/ or relevant third parties, based on a high-level telephone interview with the Client's representative(s) and/ or relevant third parties. GIG has not conducted, and shall not be responsible for conducting, any audit or detailed review or assurance or any other verification exercise of any such data (including data related to allocation of the use of proceeds).

Furthermore, no site-specific environmental or social due diligence has been, or is required to be, conducted by GIG, and GIG does not express any opinion on whether local site-specific environmental and/ or social impact have been mitigated appropriately. GIG has not undertaken any review of any underlying project's environmental and/ or social, permitting, licensing or other compliance status.



## Reference data

In preparing this Report, GIG has relied upon various sources of data and information provided to GIG by relevant third parties or obtained through public information sources, the content of which no GIG Party has verified or controls.

GIG calculates Green Impact using reference data obtained from, among others, by the Ecoinvent life cycle inventory datasets for the calculation of environmental impacts. Green Impact is also calculated based on data supplied by the International Energy Agency ("IEA"), specifically from the 2015 editions of the World Energy Statistics and Balances dataset and the CO<sub>2</sub> Emissions from Fuel Combustion dataset.

Any limitations and caveats that are applicable to the Ecoinvent and IEA datasets, as published on their websites, are also applicable to the results presented in this Report.

GIG's method is designed to work with a limited number of key inputs and to be globally applicable, and makes some simplifying assumptions in order to achieve this degree of flexibility.

## Publication and use of this Report

This Report must not be published or reproduced by any person without the prior written consent of GIG.

Neither the Recipient of this Report nor any other person may in any way alter, modify or change this Report without the prior written consent of GIG. In particular, without limitation, the Recipient (and any other person in receipt of this Report) may only use or disclose this Report in its original, whole and complete format and shall not summarise, dissect or in any way use or display only part of this Report without the prior written consent of GIG.

Neither the Recipient nor any other person may disclose, publish or reproduce this Report in any manner which is misleading or which impairs the relevant data being disclosed, published or reproduced or in any manner which creates a false impression as to the origin or value of the information or which has an adverse impact upon GIG's reputation as a provider of the relevant services.

Unless GIG has expressly agreed otherwise in the Terms of Engagement, this Report is not for use by the Recipient or any other person for any purpose, including in:

- a. evaluating specific technical or scientific aspects of relevant projects;
- b. carrying out financial, commercial, economic or investment-related due diligence in relation to the Recipient or any other person, any financial instruments issued, or to be issued, by the Recipient or any other person, or relevant project(s) or transactions;
- c. providing investment or financial advice, making investment decisions or recommendations or evaluating financial performance of any person or financial instrument;
- d. valuing financial instruments;
- e. verifying the accuracy or completeness of any information, data, documents or representations provided to GIG by the Issuer by any third party;
- f. verifying the accuracy or completeness of any publicly available information, data, documents or representations; or
- g. providing or obtaining advice on legal, regulatory, environmental, accounting or taxation matters.

To the extent permitted by law, no GIG Party shall be liable to the Recipient or any third party for any losses suffered in connection with such use.

## Governing law

This Report (including the appendices) and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or use shall be governed by and construed in accordance with the laws of England, with the courts of England having exclusive jurisdiction over any such dispute or claim.

## Appendix 4

### Important notice and disclaimer:

Green Investment Group Limited (together with its affiliates, funds managed by its affiliates and its and their respective employees, directors, officers, successors, representatives and agents, "GIG") makes 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 information is subject to change at any time, and GIG has no duty to provide you with notice of such changes and assumes no obligation to update or otherwise revise these materials for any reason.

To the extent these materials include estimates and forecasts as to future financial, operational or economic performance, GIG has assumed that such estimates and forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgments of the source of such information. Additionally, future results are impossible to predict, and past performance is not necessarily indicative of future performance. Recipients of this document should understand that statements regarding future prospects of instruments, securities or transactions may not be realised. Opinions and estimates offered in this document constitute the judgment of non-research employees of GIG and are subject to change without notice, as are statements about market trends, which are based on current market conditions and numerous economic factors. This document includes forward-looking statements that represent opinions, expectations, beliefs, intentions, estimates or strategies regarding the future, which may not be realised. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "will," "should," "seek," and similar expressions. These forward-looking statements reflect views and assumptions as of the date of this document and are subject to risks and uncertainties. Actual results and trends in the future are likely to vary from such forward-looking statements due to various factors that are beyond our ability to control or predict, and such variations could be material. Given these uncertainties, you should not place undue reliance on the forward-looking statements. GIG does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. The information and data contained in this document are not a substitute for your independent evaluation and analysis.

This document does not constitute an offer to sell or a solicitation of an offer to buy any securities or to participate in any transaction. It is an outline of matters for discussion only. Any person receiving this document and wishing to effect a transaction contemplated hereby, must do so in accordance with applicable law. This document is not intended for distribution to, or use by, any person or entity in any location where such distribution or use would be contrary to law or regulation, or which would subject GIG to any registration requirement or similar regulation or governmental requirement within such location. Any transaction implementing any proposal discussed in this document shall be exclusively upon the terms and subject to the conditions set out in the definitive transaction agreements. Any proposal or offer would be conditional upon, amongst other things, GIG obtaining internal approvals and external approvals and detailed legal, taxation and accounting advice.

This document contains selected information and does not purport to be all-inclusive or to contain all of the information that may be relevant to any transaction contemplated hereby. GIG has prepared this document on the basis of information which is publicly available, and sources believed to be reliable. In preparing these materials, GIG has relied upon and assumed, without independent investigation or verification, the accuracy and completeness of all such information. Without limiting the generality of the foregoing, no audit or review has been undertaken by an independent third party of the financial assumptions, data, results, calculations and forecasts contained in, presented or referred to in this document. Recipient acknowledges that circumstances may change and the contents of this document may become outdated as a result.

GIG is not an advisor as to legal, regulatory, tax, or accounting advice, including with respect to any disclosure requirements under the securities laws of any jurisdiction. You should conduct your own independent investigation and assessment as to the validity of the information contained in this document and the economic, financial, regulatory, legal, tax, investment and accounting implications of such information. Any statements contained herein as to tax matters may not be used by any taxpayer for the purpose of avoiding tax penalties that may be imposed on such taxpayer. The Recipient acknowledges that neither it nor GIG intends that GIG act or be responsible as a fiduciary to the Recipient, its management, stockholders, creditors or any other person. Each of the Recipient and GIG, by accepting and providing this Report 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 regarding this Report.

Green Investment Group Limited is not authorised or regulated by the Financial Conduct Authority or the Prudential Regulatory Authority or any equivalent regulatory authorities in any other jurisdiction. Green Investment Group Limited is not an authorised deposit-taking institution for the purposes of the Banking Act 1959 (Commonwealth of Australia), nor do its obligations 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 Green Investment Group Limited.

© Green Investment Group Limited 2022

Find out more

[www.greeninvestmentgroup.com](http://www.greeninvestmentgroup.com)



E-mail GIG's Green Impact Advisory team for more information:  
[greenanalytics@greeninvestmentgroup.com](mailto:greenanalytics@greeninvestmentgroup.com)

# Appendix B

**PwC Assurance Report**



# ***Independent Reasonable Assurance Report over compliance with the Macquarie Green Finance Framework for the 12 months ended 31 March 2022***

To the Directors of Macquarie Group Limited

## ***Opinion***

We have undertaken a reasonable assurance engagement on Macquarie Group Limited's (MGL) compliance, in all material respects, as evaluated against the Macquarie Green Finance Framework - June 2020 (GFF), for all eligible projects (the **projects**) which have been notionally allocated green tranche financing for the 12 months ended 31 March 2022 (the **period**).

In our opinion, MGL has complied with its obligations, in all material respects, as evaluated against the GFF, for the projects which have been notionally allocated green tranche financing during the period.

## ***Basis for opinion***

We conducted our engagement in accordance with Standard on Assurance Engagements ASAE 3100 *Compliance Engagements* issued by the Auditing and Assurance Standards Board.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

## ***MGL's responsibilities***

MGL is responsible for:

- (a) Identification of the obligations contained within the GFF;
- (b) Ensuring the GFF, as well as all eligible projects which have been notionally allocated green tranche financing are aligned with the APLMA Green Loan Principles;
- (c) The compliance activity undertaken to meet the obligations contained within the GFF; and
- (d) Identification and implementation of controls which will mitigate those risks that prevent the obligations contained within the GFF being met and monitoring ongoing compliance.

## ***Our independence and quality control***

We have complied with the independence and other relevant ethical requirements relating to assurance engagements, and apply Auditing Standard ASQC 1 *Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, and Other Assurance Engagements* in undertaking this assurance engagement.

## ***Our responsibility***

We have conducted our assurance engagement in accordance with Standard on Assurance Engagements ASAE 3100 *Compliance Engagements*. That standard requires that we comply with ethical requirements applicable to assurance engagements and plan and perform procedures to obtain reasonable assurance about whether MGL has complied with its obligations, in all material respects, as evaluated against the

**PricewaterhouseCoopers, ABN 52 780 433 757**

One International Towers Sydney, Watermans Quay, Barangaroo NSW 2000, GPO BOX 2650 Sydney NSW 2001  
T: +61 2 8266 0000, F: +61 2 8266 9999, [www.pwc.com.au](http://www.pwc.com.au)

Liability limited by a scheme approved under Professional Standards Legislation.



GFF, for the projects which have been notionally allocated green tranche financing for the year ended 31 March 2022.

An assurance engagement on compliance involves performing procedures to obtain evidence about MGL's compliance with its obligations, in all material respects, as evaluated against the GFF, for the projects which have been notionally allocated green tranche financing. We have performed procedures to obtain evidence about compliance activities and controls implemented to meet the obligations for the projects which have been notionally allocated green tranche financing for the period. The procedures selected depend on our judgement, including the identification and assessment of risks of material non-compliance with the obligations, as evaluated against the GFF.

### ***Inherent limitations***

Because of the inherent limitations of an assurance engagement, together with the internal control structure, it is possible that fraud, error or non-compliance with compliance requirements may occur and not be detected.

A reasonable assurance engagement throughout the period does not provide assurance on whether compliance with the obligations contained within the GFF will continue in the future.

### ***Use of report***

This report has been prepared for use by the Directors of MGL for the purpose of providing reasonable assurance over compliance with the obligations contained within the GFF. We disclaim any assumption of responsibility for any reliance on this report to any person other than the Directors of MGL, or for any other purpose than that for which it was prepared.

This report relates to *Macquarie Green Finance Framework - June 2020* located at [www.macquarie.com/au/about/investors/debt-investors](http://www.macquarie.com/au/about/investors/debt-investors). The Management of MGL are responsible for the integrity of MGL's website and we do not accept responsibility for any changes that may have occurred to this version of the GFF since it was initially presented on the website.

*PricewaterhouseCoopers*  
PricewaterhouseCoopers

*C. Mara*

Caroline Mara  
Partner

Sydney  
12 July 2022

## Important notice

This report has been prepared by Macquarie Group Limited ("Macquarie") for the sole purpose of providing an overview of its green financing and associated green impact ("Purpose"). It is provided on a confidential basis, and may not be reproduced in whole or in part, nor may any of its contents be disclosed to any other person, without Macquarie's prior written consent.

This report is provided by Macquarie for general information purposes only, without taking into account any potential investors' personal objectives, financial situation or needs. It should not be relied upon by the recipient in considering the merits of any particular transaction. It is not an offer to buy or sell, or a solicitation to invest in or refrain from investing in, any securities or other investment product.

Nothing in this report constitutes investment, legal, tax, accounting or other advice. The recipient should consider its own financial situation, objectives and needs, and conduct its own independent investigation and assessment of the contents of this presentation, including obtaining investment, legal, tax, accounting and such other advice as it considers necessary or appropriate.

This report has been prepared on the basis of publicly available information, Macquarie internal information and information made available to Macquarie. Macquarie has relied upon and assumed, without independent verification, the accuracy and completeness of all information made available to it by third parties. It contains selected information and does not purport to be all-inclusive or to contain all of the information that may be relevant to the Purpose. The recipient acknowledges that circumstances may change and that this presentation may become outdated as a result.

Macquarie is under no obligation to update or correct this report.

Macquarie, its related bodies corporate and other affiliates, and their respective directors, employees, consultants and agents ("Macquarie Group") make no representation or warranty as to the accuracy, completeness, timeliness or reliability of the contents of this report. To the maximum extent permitted by law, no member of the Macquarie Group accepts any liability (including, without limitation, any liability arising from fault or negligence on the part of any of them) for any loss whatsoever arising from the use of this presentation or its contents or otherwise arising in connection with it. This report may contain forward-looking statements, forecasts, estimates and projections ("Forward Statements"). No independent third party has reviewed the reasonableness of any such statements or assumptions. No member of the Macquarie Group represents or warrants that such 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 made that the assumptions on which the Forward Statements are based may be reasonable. No audit, review or verification has been undertaken by the Macquarie Group or an independent third party of the assumptions, data, results, calculations and forecasts presented or referred to in this report.

The recipient acknowledges that neither it nor Macquarie intends that Macquarie act or be responsible as a fiduciary to the recipient, its management, stockholders, creditors or any other person. Each of the recipient and Macquarie, by accepting and providing this report 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 regarding this report.

The Macquarie Group may have interests in the securities and other investment products referred to in the presentation, including being directors of, or may have or may in the future act in various roles including as underwriter, dealer, broker, lender or financial advisor to their issuers and may receive fees, brokerage or commission for acting in those capacities.

Further, the Macquarie Group may act as a market maker or buy or sell those securities and other investment products as principal or agent and as such may effect transactions which are not consistent with this information.

None of the entities noted in this presentation are an authorised deposit-taking institutions for the purposes of the Banking Act 1959 (Commonwealth of Australia). The obligations of these entities do not represent deposits or other liabilities of Macquarie Bank Limited ABN 46 008 583 542. Any investments are subject to investment risk including possible delays in repayment and loss of income and principal invested. Macquarie Bank Limited does not guarantee or otherwise provide assurance in respect of the obligations of these entities.

© Macquarie Group 2022