

Accelerating the green transition

Our capabilities, ambition and commitment

December, 2020



Overview

This document is intended to give you an overview of Macquarie Group's activities, expertise and ambition in sustainable finance. Through our our advisory and development, asset management and commodities trading activities – Macquarie is committed to driving forward the green energy transition. Our work centres around three key areas of activity:

- Developing and managing renewable energy projects
- Adapting infrastructure for climate resilience
- Helping our clients on their decarbonisation pathways

Alongside our work with clients, we also continue to play a wider leadership role in the energy transition.

You can also keep up to date with our activities in real time on our website and social channels.

Links



Watch: A short film on Macquarie Group's role in accelerating the energy transition



Visit: Macquarie Group's climate change webpage



Follow: Macquarie Group on LinkedIn

Click on this icon to view a description of the asset shown

The decisive decade

We have entered the decisive decade. The decade where we know that falling short of our collective, global decarbonisation ambitions will trigger climate risks with irrevocable consequences, for our environment, society, economy and way of life.

Macquarie's role in this is to support governments and clients to realise their decarbonisation ambitions on achieving Net Zero, carbon neutrality or alignment with the Paris Agreement.

We'll do that by helping to meet the need for more renewable energy, by strengthening the resilience of the infrastructure we all rely on, and by supporting the decarbonisation of industries, companies, cities and countries.

Climate change is a challenge bigger than any one of us, but not too big for all of us. We look forward to working with you to build partnerships that will turn the challenge of our generation into an opportunity for positive change and a better future.

Shemara Wikramanayake
CEO, Macquarie Group

Links



Watch: Our Chief Executive Shemara discuss Macquarie's role in the energy transition



About Macquarie

Over the past 50 years, we've built a business with the expertise and experience needed to drive the energy transition and help our clients reach their sustainability goals.



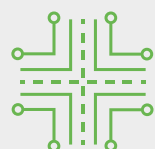
16,356
employees
in 31 markets¹



+\$A60 billion
invested or
arranged in
renewables
since 2010



+50GW
of renewables projects
in development,
construction
or operations



No.1
infrastructure
manager globally²



No.1
global renewables
financial adviser³



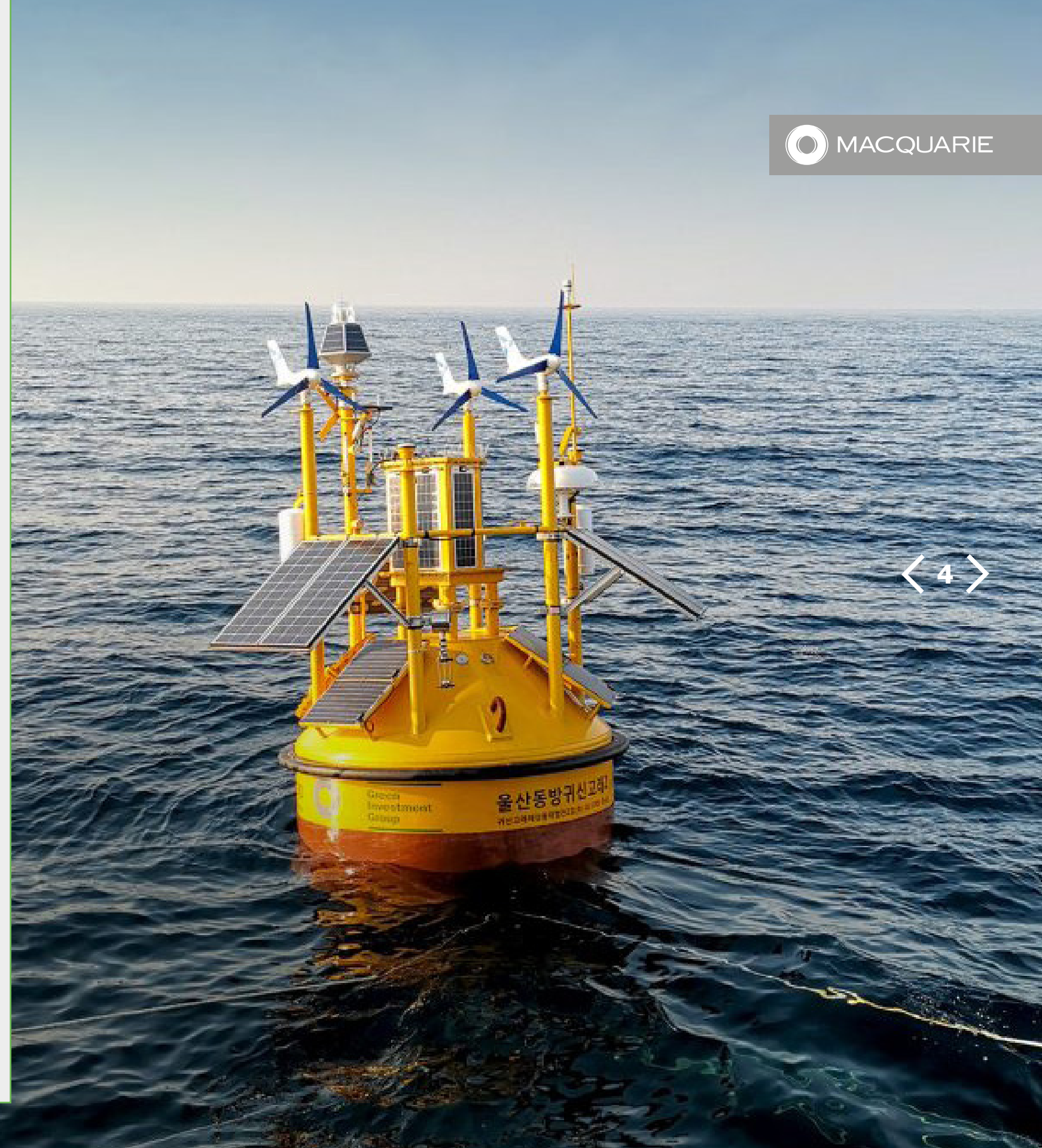
Environmental
products **bank
of the year⁴**

¹ All figures at 30 September 2020 throughout presentation, unless otherwise stated

² Based on AUM

³ Inspiratia (CY19, by transaction volume and deal count)

⁴ Energy Risk Awards 2020



Developing and managing projects

Macquarie is developing, constructing, investing in and managing +50GW of renewable energy projects across four continents.

Macquarie's Green Investment Group has **300 green projects under development** as part of a **30GW development pipeline** spanning established technologies like wind, solar and energy-from-waste. New projects are also integrating emerging technologies like floating offshore wind, utility scale storage and hydrogen.

We are also working alongside our partners, often through our managed funds, to invest in and manage a further 74 projects in construction or operation totaling 21GW of green power.

Links



[Watch: An update on GIG's recent activity](#)



[Read: GIG's Progress Report for 2020](#)



[Follow: GIG on LinkedIn](#)

Developing and managing projects

Case studies



Developing Taiwan's first offshore windfarm

GIG is applying its extensive European offshore wind expertise to the Taiwanese market through Formosa 1, 2 and 3 – bringing together marketing-leading contractors to develop and build the projects. These wind farms, a mixture of fixed and floating projects, could deliver up to 2.5GW, powering the equivalent of over 2 million Taiwanese homes.

[Read: Case study on GIG's offshore wind projects in Taiwan](#)

[Watch: Our team talk about the Formosa projects](#)



Building a national leader in solar and energy storage development

Following the acquisition of Savion, GIG has built its North American solar development pipeline to over 10GW. Through the platform, GIG has executed power purchase agreements (PPAs) for over 1GW of new solar assets, structuring the projects and securing the financial commitment required to enable the projects to proceed towards construction.

[Read: The renewable energy procurement trend in the US](#)

[Visit: Savion's website](#)



Working with the UK Government in emerging markets

GIG has a joint venture with the UK Government, called UK Climate Investments, part of the UK's International Climate Finance commitment. Recent investments are supporting the construction of affordable green housing in Kenya, the latest of three £70m investments in sub-saharan Africa, and the development and operation of 235MW of solar projects across India.

[Visit: The UKCI pages on GIG's website](#)

[Read: Building resilience: Prioritising sustainable real estate in Africa](#)



Leading institutional investment into the world's largest offshore wind market

Macquarie Infrastructure and Real Assets (MIRA) manages investments in 10 offshore wind farms around the UK – representing approximately 38 per cent of the country's total offshore wind generation capacity. Able to generate almost 3MW of clean electricity, these offshore wind assets are an important part of the UK energy mix. MIRA's managed investments are bringing institutional capital into the sector, enabling developers and utilities to recycle capital into new development projects.

[Read: Case study on MIRA's UK offshore wind portfolio](#)



Adapting infrastructure for climate resilience

As a global leader in infrastructure and energy, supporting the long-term climate resilience of our projects and businesses is central to our approach to investment and asset management.

MIRA, the world's largest infrastructure manager⁷, aspires to be the global leader in sustainable real asset management. With 150 portfolio companies providing essential services, used by more than 100 million people each day, MIRA is investing in operating procedure changes, physical enhancements, and specialised resiliency features to manage climate related physical and transition risks.

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.

Links



[Visit: MIRA's website](#)



[Read: MIRA's Infrastructure Sustainability Report](#)



[Read: Article on Infrastructure and the climate reality](#)

⁷ IPE Real Assets, July/August 2020

Adapting infrastructure for climate resilience

Case studies



Reducing the carbon intensity of farming in Australia and Brazil

MIRA's agriculture platform has invested in approximately 4.8 million hectares of land in Australia and Brazil. Macquarie-managed properties have been investing in a range of precision farming techniques since 2014, aiming to improve productivity whilst lowering greenhouse gas emissions. Using real-time data to monitor and measure outcomes, these farms are improving soil health and help combat land degradation by tailoring inputs to match the specific needs of crops.

Watch: A short film on our agriculture platform's activity

Visit: MIRA's website on our agricultural capabilities



Protecting power generation in the Philippines from extreme weather events

Energy Development Corporation (EDC) manages 1.4GW of geothermal, solar, hydropower and wind energy generation – 20 per cent of installed renewable energy in the Philippines. MIRA is supporting the business to increase the resilience of its portfolio against future extreme weather events. This significant capital investment has included the installation of geohazard early warning systems, robust modelling of landslide risks and reinforcing pipelines and cooling towers to protect against seismic disruption.

Watch: A short film on EDC



Reinforcing Finnish electricity networks against growing storm risk

Elenia operates Finland's second largest electricity network – serving approximately 430,000 customers. With Finland's average temperatures rising faster than the global average and more frequent and severe weather events, risks to the resilience of the country's electricity network were increasing. MIRA is supporting Elenia to bury around 25,000km of its power line network to protect it from climate risks.

Read: Infrastructure and the climate reality - Building assets that last



Designing Dutch roads to be more resilient to growing flood risks

The Blankenburg Connection is one of the largest PPP projects awarded in the Netherlands to date. Macquarie Capital led the winning bidding consortium acting as sole financial advisor and debt arranger. The project involves construction of a 950m-long immersed tunnel below the Scheur River, which crosses the area's main flood protection dam. The team have worked with the local authorities to meet strict legal guidelines, reinforce existing flood prevention infrastructure and ensure that the project will be able to resist future water level rises.

Read: The largest road PPP project awarded in the Netherlands to date



Helping clients on their decarbonisation pathways

Macquarie is supporting companies in their decarbonisation pathways through a range of services.

Our Commodities and Global Markets (CGM) business is providing risk and capital solutions in green fuels, natural gas and LNG, helping accelerate the transition from higher carbon fuels, and supporting early stage carbon capture and storage. The business is also a global leader in voluntary carbon offsetting and provides a range of asset finance solutions from zero emission transport fleets, to smart meters, energy efficiency and roof top solar.

Our GIG business is a leader in the fast-growing renewables power purchase agreement market and Macquarie Capital is the global leader in infrastructure and renewables financial advisory. The MIRA business is working with its portfolio companies to reduce their emissions intensity.

Links



[Watch: Learn more about our CGM business from our 2020 Operational Briefing](#)

Helping clients on their decarbonisation pathways

Case studies



Arranging Poland's first virtual green power agreement

Signify is the world's leader in lighting and has achieved carbon neutrality across its global operations. With 25 per cent of Signify's global electricity usage in Poland, a green solution for its manufacturing footprint in Poland was required to achieve this goal. GIG worked with Signify to structure Poland's first renewable virtual power purchase agreement (PPA) and through our green impact reporting, we were also able to quantify the carbon benefit of this PPA and track the source of the renewable power through Guarantees of Origin.

[Visit: GIG's webpage on Power Purchase Agreements](#)

[Read: Helping manufacturers in Poland meet their green power commitments](#)



Working with the UK's largest energy suppliers to roll-out smart meters

The roll-out of smart meters in the UK is a key enabler to a more efficient energy system and gives customers more information and more control over their energy use. Macquarie has delivered more than five million smart and advanced meters to date in Great Britain. By working with partners, Macquarie provides an end-to-end service solution for the provision, installation and funding of smart gas and electricity meters – enabling smaller suppliers to roll out this energy saving technology.

[Read: Case study on Smart Meters in the UK](#)



Leading the development of carbon offset markets

Macquarie's CGM business is playing an increasing role advising clients on their decarbonisation options. This includes helping clients determine what offsets should be in their portfolio, based on project type, location and vintage – as well as the role that different offsets they can play in a wider decarbonisation plan. This team's expertise was recognised earlier this year when Macquarie Group was awarded "Environmental products – bank of the year" at the Energy Risk Awards 2020.

[Read: Article on the activities that earned Macquarie Environmental Products Bank of the Year](#)

[Watch: A short film on Macquarie and voluntary carbon offsets](#)



Investing in a pioneering CCS project in Scotland

The St Fergus Gas Terminal, in Northern Scotland, is one of the UK's largest gas terminals. Macquarie is providing strategic support to Pale Blue Dot and its parent company Storegga to use redundant oil and gas infrastructure at St Fergus to create one of the UK's first Carbon Capture and Storage (CCS) projects. By using existing infrastructure this project is designed to deliver a cost effective way of delivering CCS.

[Watch: Macquarie's Nick O'Kane interview Storegga Geotechnologies' CEO on CCS](#)

Leading from the front

As well as supporting our clients and partners to accelerate the energy transition we are also building a greener Macquarie through more transparent climate disclosures, lowering our direct emissions and playing a proactive role in raising green finance.

We are playing our part in leading global initiatives on climate adaptation and mitigation and supporting multi-lateral organisations, governments and industry groups around the world.

Over the past decade, we have reduced our energy usage and have committed to source 100% renewable electricity across our global offices and data centres by 2025. Our current sustainability strategy is structured around 5 key pillars aligned to the UN Sustainable Development Goals.

Each year we host a Green Energy Conference for our clients and stakeholders. In 2020 over 2,000 participants joined the virtual discussion.

Links



[Watch: 20 discussions featuring over 60 market leaders at our 2020 Green Energy Conference](#)



[Read: Macquarie's 2025 Sustainability Plan](#)

Leading from the front



Strengthening our climate disclosures

Macquarie continues to support the important work of the Task Force on Climate-related Financial Disclosures (TCFD) and is actively implementing its recommendations based on the four key pillars of: climate change governance, strategy, risk management and metrics and targets. This is supported by scenario analysis to understand key risks and opportunities posed by climate change.

[Read: Macquarie's report on TCFD implementation progress and scenario analysis](#)



Leading the development of impact reporting

Our GIG Green Impact Advisory team has long used its world-class methodology to rate and report the green impact of investments. However, we now also provide specialist advice on green finance investment instruments and green impact reporting to clients. Last year, we developed a tool with BloombergNEF which provides a simple and intuitive assessment of the carbon benefits of over 60,000 renewable assets around the world, enabling clients to make more informed, sustainable choices and provide consistent, robust public disclosures.

[Visit: GIG's website on Green Impact Advisory services](#)



Supporting global climate initiatives

Macquarie Group's CEO, Shemara Wikramanayake, served as a Commissioner of the Global Commission on Adaptation, and is now an advisory board member of the Global Centre on Adaptation, both seeking to accelerate climate adaptation action and create concrete solutions that enhance resilience. Shemara was also appointed by the UN's Special Envoy for Climate Action, to the Climate Finance Leadership Initiative that seeks a six-fold increase in climate mitigation investment from the private sector.

[Read: The CFLI Report](#)

[Visit: The Global Center for Adaptation's website](#)



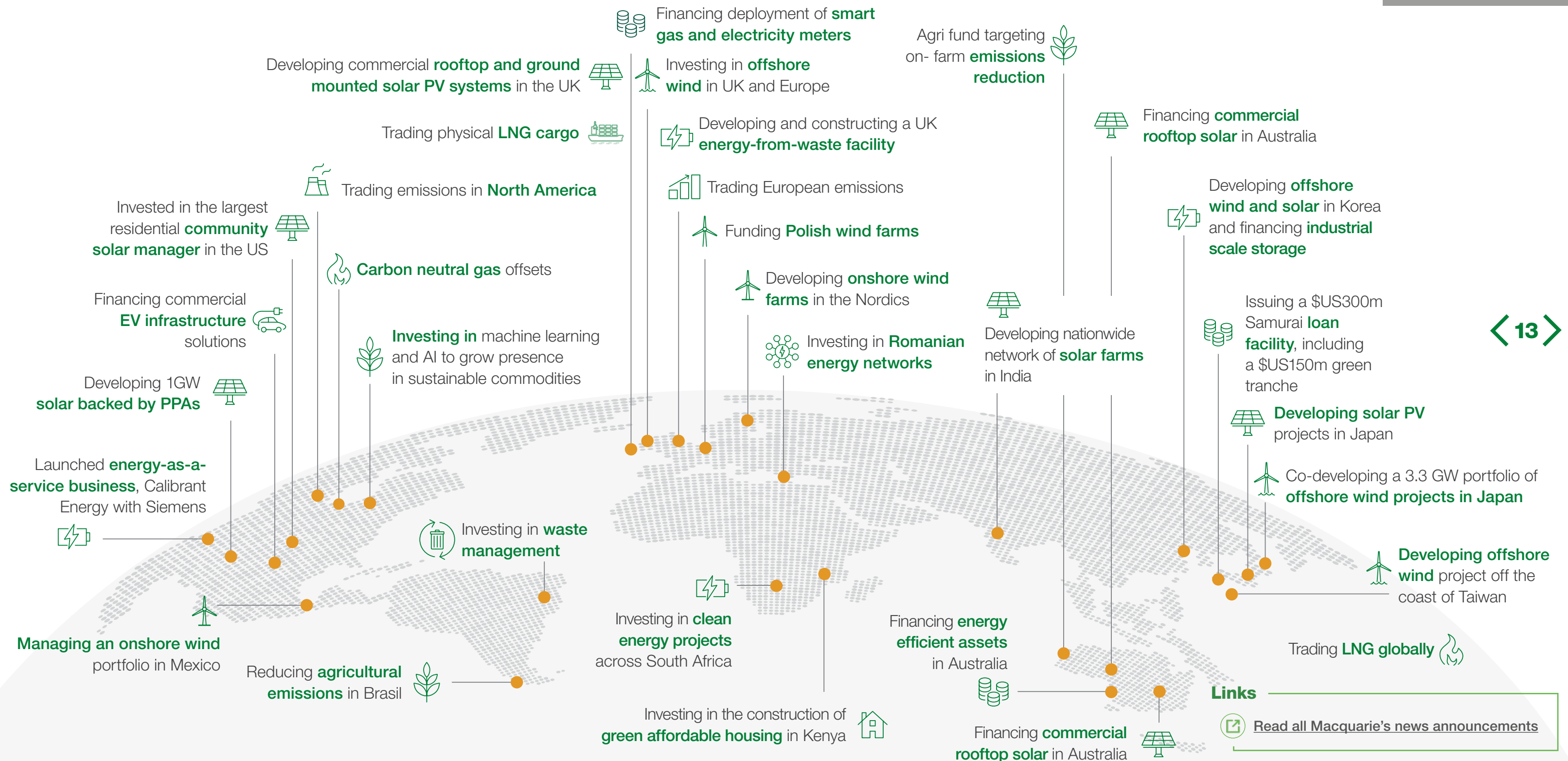
Macquarie Asset Management's net zero by 2040 ambition

Macquarie Asset Management (MAM), a top 50 global asset manager and the world's largest manager of infrastructure, has announced a plan to manage its portfolio in line with net zero emissions by 2040. In alternative investment portfolios, where MAM exercises control or significant influence over the underlying investments, the business aims to have Paris-aligned/net zero business plans in place by the end of 2022. MAM will work with our portfolio companies with the aim that they will be meeting their Paris-aligned/net zero emissions reduction pathways by 2030.

[Read: Addressing Climate Change and Accelerating the low carbon transition](#)



Our activity over the last year



Discover more about the outcomes Macquarie generates at:
www.macquarie.com/perspectives/climate-change

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