



**Green  
Investment  
Group**

# A market leader in green energy

**Macquarie Capital**



# A leading global, green investment platform

Macquarie Capital's Green Investment Group (GIG) represents a leading global, green investment platform. We are committed to driving growth in green energy through investments in established and emerging technologies across a range of renewables sectors. As one platform, we're able to leverage our highly specialized expertise, global network and flexible solutions to deliver greater possibilities for our clients, partners, and investors.



Led **\$US 20** BILLION of investment into green energy projects since 2010<sup>1</sup>

**200+** green energy and investment specialists

**~7** GW of green projects under development or construction across Macquarie

Invested in Europe's **Largest** single-site onshore wind-farm



**Green Finance Award 2018**

Covanta Partnership

**The Banker**

**North American Battery Storage Deal of the Year 2017**

Electrodes Holdings

**IJGlobal**

**Europe Wind Deal of the Year 2017**

Markbygden ETT



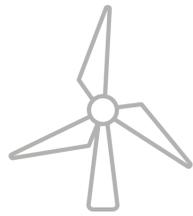
**No. 1 Global Renewables Financial Advisor 2017**

Project Finance

**InfraDeals**

1. GIG and Macquarie Capital green energy capital committed or arranged since 2010.

# Specialized expertise across a range of sectors



## Established technologies

Solar, onshore wind, offshore wind, waste, energy efficiency, district heating, hydro, inter-connectors and biomass.



## Emerging technologies

Biofuels, low carbon transport, smart grid, battery storage and tidal.



## Project capital

Investing debt and equity in all stages of the project lifecycle: development, construction and operations.



## Advisory services

Advising clients on strategic and financial issues including M&A, divestments, project and leveraged finance.



# A full suite of services



---

## Investor/ principal

- Invest, underwrite and distribute equity capital
- Principal and partnership mindset



---

## Developer/ sponsor

- Development capital and equity capital
- Consortium formation and pursuit of capital



---

## Project delivery and asset management

- Project and contract negotiation
- Construction delivery
- Operational management



---

## Lender

- Underwriting and syndication
- Leveraged loans, mezzanine debt, preferred equity



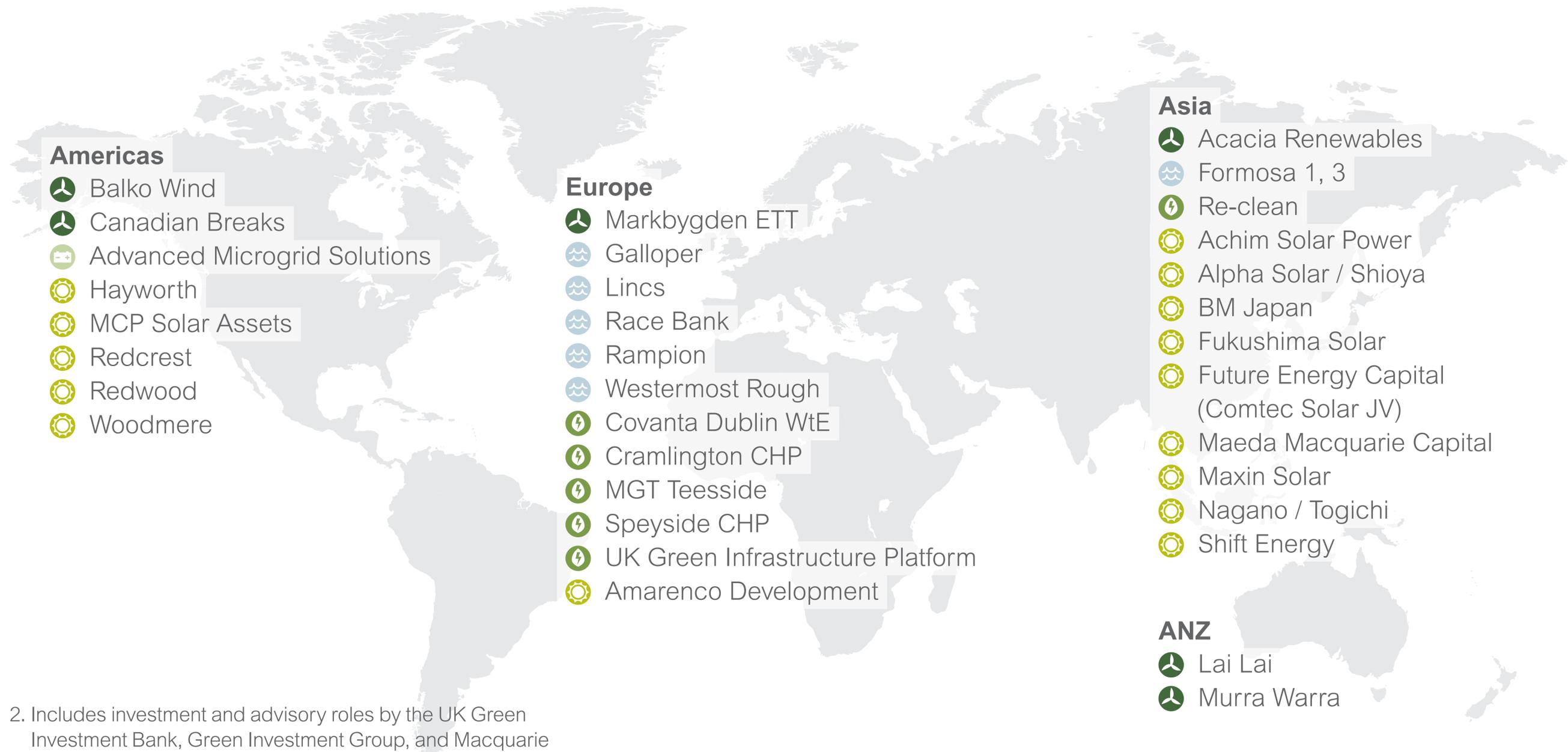
---

## Advisor

- Sector leading financial advisory
- Debt and equity arranger

# Global and diversified sector expertise

Selected project experience<sup>2</sup>



2. Includes investment and advisory roles by the UK Green Investment Bank, Green Investment Group, and Macquarie

# 200MW onshore wind farm



Canadian  
Breaks  
Texas,  
United States

## Canadian Breaks

### Onshore Wind | Texas, United States

Development of a 200 MW onshore wind farm that used long-term power contracts to deliver a robust project structure in an area with exceptional natural wind resources but a constrained transmission system.

Macquarie Capital led the project's development and financing, including securing transmission capacity, all necessary permits and a 45 year operating lease term, which maximizes re-powering, re-contracting and terminal value optionality. Macquarie Capital is a financial advisor and sponsor on the project, and provided a share of its tax equity.

# 300MWh battery storage portfolio



**Electrodes<sup>3</sup>**  
California,  
United States

## Electrodes<sup>3</sup>

### Distributed Energy | California, United States

Acquisition and build-out of a 50MW/300MWh portfolio of behind-the-meter battery storage projects at over 100 commercial, industrial and government facilities across Southern California. This transaction represented the first utility-scale, non-recourse project debt finance for a behind-the-meter battery portfolio and was supported by Macquarie Capital's development expertise and project equity.

The Portfolio has a 10 year capacity contract with local utility Southern California Edison and will provide energy management services to some of California's largest property owners, while also helping alleviate grid congestion and lower customer electricity bills across the West Los Angeles Basin.

3. Macquarie Capital deal, completed prior to GIG acquisition.

# 99MW solar project



Redwood<sup>3</sup>  
California,  
United States

## Redwood<sup>4</sup>

### Solar | California, United States

Structuring and underwriting of a flexible development funding commitment to 8minuteenergy Renewables for security postings and late stage development of a 99MW portfolio of solar projects.

The transaction allowed 8minuteenergy to accelerate the development and commercialisation of a high-quality solar project, delivering power to investment grade off-takers with long-term PPAs. Macquarie Capital also acted as exclusive financial adviser on the sale of the project to sPower.

4. Macquarie Capital deal, completed prior to GIG acquisition.

# 650MW wind farm



## Markbygden ETT Onshore Wind | Sweden

Development of the largest single-site onshore wind farm in Europe. The 650MW 179-turbine project is one of the largest single asset wind powered corporate PPAs globally, selling the majority of its output under a 19 year corporate PPA. The project also has an innovative structured floor solution for green certificate revenue that provides higher contracted revenue than other projects in the region.

The combined PPA and green certificate floor allowed Macquarie Capital to raise a market leading, long-term debt financing package utilizing bank, export credit and multilateral funding. Macquarie Capital acted as development partner, financial adviser and 50% equity investor alongside GE.



Markbygden ETT  
Sweden

# 128MW wind farm, 1.9GW development



## Formosa 1, Formosa 3 Offshore Wind | Taiwan

Development of Taiwan's first operational offshore wind project alongside Swancor, Taiwan's leading offshore wind developer. Ørsted, the world's leading owner and operator of offshore wind is also part of the consortium which will deliver the 128 MW wind farm, Formosa 1.

Together with Swancor, Macquarie Capital is also developing the 1.9 GW Formosa 3 offshore wind seabed area, the largest portfolio to participate in the Zonal Application phase with the Taiwan Government.



**Formosa 1,  
Formosa 3**  
Taiwan

# UK's largest waste-to-energy development platform



## Covanta Partnership

### Waste and Bioenergy | UK and Ireland

Acquisition of a 50% stake in Dublin Waste to Energy (WtE), which treats 600,000 tonnes of residual waste per annum. The project is part of a joint venture with Covanta, the world's largest owner and operator of WtE projects. The joint venture aims to develop WtE projects across the UK and Ireland, with a pipeline of six projects totalling over 2 million tonnes of residual waste per annum.

The partnership is part of a long-term relationship between Macquarie Capital and Covanta, who also have a joint venture to develop a one million tonnes per annum solid waste management facility in the Philippines.



Covanta  
Partnership  
UK and Ireland

# Contacts

For more information on what we do and the projects we have supported visit

If you're interested in working with us then please get in touch via

or by calling +1 212 231 2210 .

## New York

125 W 55th St  
New York, NY, 10019

## Edinburgh

Atria One, Level 7, 144 Morrison Street  
Edinburgh, EH3 8EX

## London

Ropemaker Place, 28 Ropemaker Street  
London, EC2Y 9HD

Keep in touch with the Macquarie Green Investment Group at

## Macquarie Capital Green Investment Group

Nick Butcher  
Global Co-Head of Infrastructure & Energy  
Executive Director  
+1 212 231 6448

Rob Kupchak  
Head of Infrastructure & Energy Americas  
+1 212 231 1685

Mark Dooley  
Global Head of Green Energy  
Executive Director  
+44 20 3037 2098

Chris Archer  
Head of Green Energy Americas  
+1 212 231 0656

## Project Debt & Offshore Wind

Alex Krolick  
Managing Director  
+1 212 231 2140

## Storage & Distributed Energy

Dan Cary  
Vice President  
+1 212 231 6157

## Waste, Biomass & Environmental Services

Simon Ang  
Senior Vice President  
+1 212 231 1855

## Project Development & Asset Management

Thomas Houle  
Managing Director  
+1 512 712 1927

## Onshore Wind & Solar

Ian McIntyre  
Senior Vice President  
+1 212 231 1671

Peter Zhu  
Vice President  
+1 212 231 6572

## M&A and Sponsor Coverage

Rob Valentine  
Managing Director  
Head of Infrastructure M&A Advisory  
Head of Sponsor Coverage  
+1 212 231 6405

## IMPORTANT NOTICE AND DISCLAIMER

"Macquarie Capital" refers to the Macquarie Capital Group, which comprises Macquarie Corporate Holdings Pty Limited, its worldwide subsidiaries and the funds or other investment vehicles that they manage. Macquarie Corporate Holdings Pty Limited is an indirect, wholly-owned subsidiary of Macquarie Group Limited. This document should not be construed as an offer, invitation or solicitation to buy or sell any security or product, or to engage in any transaction. Past performance is not a guarantee of future performance or success. This document and its contents are confidential to the person(s) to whom it is delivered and should not be copied or distributed, in whole or in part, or its contents disclosed by such person(s) to any other person. This document does not constitute an offer to sell or a solicitation of an offer to buy any securities. It is an outline of matters for discussion only. You may not rely upon this document in evaluating the merits of investing in any securities referred to herein. This document does not constitute and should not be interpreted as either an investment recommendation or advice, including legal, tax or accounting advice. Future results are impossible to predict. Opinions and estimates offered in this presentation constitute our judgement and are subject to change without notice, as are statements about market trends, which are based on current market conditions. This presentation may include forward-looking statements that represent opinions, estimates and forecasts, which may not be realized. We believe the information provided herein is reliable, as of the date hereof, but do not warrant its accuracy or completeness. In preparing these materials, we have relied upon and assumed, without independent verification, the accuracy and completeness of all information available from public sources. Nothing in this document contains a commitment from any member of the Macquarie Group "Macquarie" to subscribe for securities, to provide debt, to arrange any facility, to invest in any way in any transaction described herein or is otherwise imposing any obligation on Macquarie. Macquarie does not guarantee the performance or return of capital from investments. Any participation by Macquarie in any transaction would be subject to its internal approval process. Other than Macquarie Bank Limited ABN 46 008 583 542 (MBL), none of the entities noted in this document are authorized 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 MBL. MBL does not guarantee or otherwise provide assurance in respect of the obligations of that entity.