Macquarie has global scale, employing more than 13,500 staff operating in more than 60 locations across 27 countries, and is one of the world’s leading advisers on, and investors in, infrastructure.

- **$A2.2b profit**: 48 years of unbroken profitability
- **$A30b+ market capitalisation**: One of Australia’s top 20 listed companies
- **$A481b+ AUM**: Top 50 global asset manager
- **13,500+ staff**: Operating in more than 60 locations in 27 countries
- **International income accounts for 63% of total income**: One of the world’s largest owner of ‘Real Assets’
- **3,450 staff** in Asia
- **2,502 staff** in The Americas
- **6,136 staff** in Australia and New Zealand
- **1,509 staff** in Europe, Middle East and Africa

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1. Macquarie Group profit, market capitalisation, AUM and staff numbers current as at 31 March 2017.
2. Net operating income excluding earnings on capital and other corporate items.
Introducing Macquarie’s Green Investment Group

Among Europe’s largest team of green infrastructure investors
38+ green infrastructure investment specialists
30+ structuring, technical, asset management and green reporting specialists
Led over £15bn of investment into UK green infrastructure

Established track record
Established global brands
In-house operational, technical and policy expertise
Deep relationships with infrastructure focused investors
Strong relationships with policy makers and governments in UK and internationally

…creating a clear market leader in green energy investment
A leading developer, investor and financial adviser with extensive and relevant experience spanning a broad spectrum of infrastructure, utilities and energy assets with a team of more than 170 specialists.
Macquarie Green Investment Group

The Green Investment Bank acquisition creates a platform for growth. Together, Macquarie Group and GIB have invested in:

- **48%** of offshore wind capacity in UK (1)
- **>30** waste & bio energy projects
- **650 MW** Europe’s largest single-site onshore wind farm
- **2 million** smart meters installed
- **1.8 GW** solar projects financed
- **170,000** low energy street lights funded

(1) Wind farms that have received equity investment or debt finance from UK Green Investment Bank, Green Investment Group, Macquarie or Macquarie managed funds make up 48% of the capacity of UK offshore wind farms in construction or operation as at 12 February 2018.
City Scale Infrastructure

GIG is looking at city scale infrastructure opportunities to deploy our project development capabilities and put our capital to work.

**Low carbon energy generation and energy efficient buildings**
- By 2050, 70% of the world’s population will be living in cities and energy demand will double.
- Increased demand for government and cities to provide energy efficient buildings.
- Increasing integration with low carbon energy systems including district heating, solar and batteries.
- Integrated green development and funding approach required.

**Low carbon vehicles and charging infrastructure**
- The costs of electric vehicles (EVs) are falling and ranges continue to increase.
- The lifetime Total Cost of Ownership (TCO) of an EV is becoming increasingly competitive with conventional vehicles.
- For vehicles with high duty cycles, such as city bus & vehicle fleets and ride hailing vehicles, the TCO economics are particularly compelling.
- GIG can structure different solutions to finance vehicles and charging infrastructure.

**LED Streetlighting and Smart cities**
- Step-changes in technology are now providing opportunities to manage and optimize energy assets, to gather large data flows including IoT and to enhance the urban environment.
- Needs careful planning and building.
- Energy management projects go hand in hand with smart technology.
- Green infrastructure such as smart LED lighting can provide a backbone for a smart city including 5G.

**District heating**
- UK 2050 target of 80% reduction in Greenhouse gas emissions requires almost full decarbonisation of heat.
- Likely to be mix of solutions including District Heating.
- Cities developing area-wide plans but often difficult to commercialise the business case.
- GIG development and funding solutions for different risk profiles.
City partnership

Potential JV structure between Macquarie GIG and a City for project development, financing, build and operate

**Indicative Structure (conceptual)**

- **City + other public sector stakeholders ESCO**
  - [x]%

- **Macquarie / GIG**
  - [x]%

**“City Infra Devco” Partnership JV**

**Financing Solution 1**
- Energy Services Agreements
  - Capex-free solution
  - GIG own assets
  - Guaranteed monthly savings

**Financing Solution 2**
- PPP-Style handback
  - Capex-free + Handback Agreement
  - Monthly payments

**Financing Solution 3**
- Corporate Green Loan to City
  - Construction and Operations
  - Separate contracts
  - Finance payment
  - Customer Owned

**Financing Solution 4**
- City internal funding
  - Construction and Operations
  - Separate contracts
  - Cash or Finance payment
  - Customer Owned

**Example financing solutions across the risk spectrum**
# JV / PPP: Critical success factors

Huge potential for success but some key underpinnings from our experience

## Indicative structure and responsibilities of the partners

<table>
<thead>
<tr>
<th>Objective of the Parties</th>
<th>The principal objective of the partnership is to work together to</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Develop and fund a project pipeline</td>
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<tr>
<td></td>
<td>• Construct &amp; operate a number of green infrastructure projects</td>
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</tbody>
</table>

## Mechanism

- “City Infra Devco” created as a Joint Venture between the City and GIG to own 100% of the equity interests in special purpose vehicles which:
  - Provide financing alternatives, development, construction, and operation, and ownership of city low carbon and infrastructure projects
  - Generate energy savings or receive income from the projects, which is split between JV partners according to the contractual mechanism, with performance sharing (including project or portfolio refinancing) through equity ownership
  - Development fees on successful projects and income sharing will allow capital recycling in the Devco = long term sustainable business

## City Responsibilities

- Initial infra and low carbon projects to bring to the JV
- Continuing development of City’s smart low carbon strategy
- Senior project sponsorship and some resource availability
- Agreed project approval criteria and sign-off processes set out in JV agreement
- Project Development activities to be undertaken by the City including required approvals / planning / permits, and grid connection, etc
- Agreed process for procurement of other advisers and contractors (construction, hardware and software provision, operation and maintenance)
- Agreed project metrics where City will self-fund

## GIG Responsibilities

- Project Development and Origination through agreed pipeline with the City, with parameters for development equity capital and resource
- Commitment to assist in developing the City’s ongoing smart low carbon strategy
- Develop projects and integrated solutions and provide optimum commercial and financing solutions
- Commitment to fund projects for a fair commercial return based on agreed project metrics
- Education and knowledge transfer to the City’s development and delivery team to enhance its green infra capability
- Assist the City in project approval processes and procurement of advisers and contractors
The Macquarie GIG Difference

What sets Macquarie GIG apart from other funding solutions and ESCOs?

- We are independent of contractors, technology manufacturers, utility suppliers and facilities maintenance providers.
- We offer a full suite of infrastructure and energy solutions to deliver a city’s capital programme, lower energy consumption, improve resilience, provide flexibility and reduce your carbon footprint.
- We have the expertise to engage with all key stakeholders and supply chains to deliver a bespoke solution.
- We can invest equity into projects (and at development stage) aligning incentives, and structure debt financing.
- We are well positioned to work with your existing supply chain and in-house specialists.
Why Macquarie and GIG

By working with Macquarie and the Green Investment Group you gain a trusted, expert partner.

Macquarie and GIG have a strong track record across the infrastructure sectors and we are looking for investment opportunities to work alongside public sector partners, to enter into projects at the development stage, to commit resources and invest development capital.

City Scale Infrastructure projects can be delivered using GIG’s proprietary products such as the Green Loan and the ESA. We are also continuing to innovate and explore new funding and delivery models, which could range from new PPP style arrangements, equity co-investment and bespoke partnerships models.

We recognise the challenges facing cities — we are willing to explore non-traditional models and we have the capability to deliver and fund new green and smart infrastructure.
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