



ANNEX K : UK - THE GREEN INVESTMENT BANK (GIB)

K.I. BACKGROUND AND ESTABLISHMENT

The GIB was established by the UK government in October 2012 to “accelerate the UK’s transition to a greener, stronger economy” by investing in green infrastructure projects. At the time, the government estimated that the UK required up to GBP 330 billion (USD 423 billion) of additional investment in green infrastructure over the decade to 2020 – an annual investment gap of between GBP 30-50 billion (USD 38-64 billion) – in order to meet the UK’s various international climate agreements and obligations. The scale of the investment gap suggested that there was a case for government-led intervention to address a range of market gaps that were impeding investment, including:

- temporary limits in company and bank balance sheets, owing to increasing regulation and illiquidity in capital markets, following the 2008 financial crisis;
- a limited number of investors willing to take on the uncertainty associated with projects without precedent or a track record of results; and
- a lack of stability in long-term government policy on the green economy.

The government concluded that there was a case for a new ‘enduring’ institution with a mandate to invest in a rolling program of green infrastructure projects and mobilise (i.e. ‘crowd-in’) private finance. The new institution would be able to invest in a variety of sectors, focusing on more speculative, early-stage technologies, but with the ultimate constraint that it should exit established sectors once the technology had matured (and market-based finance was available).

In order to achieve the government’s primary aim of mobilising additional private investment, it was decided that GIB should provide finance on fully commercial terms alongside other commercial firms, rather than acting as a public funding platform providing soft loans and grants. GIB’s role would be to be both green and profitable, using its sector specific expertise to assess the risks associated with green projects accurately and giving co-investors the necessary confidence to commit finance.

From the beginning, it was envisaged that the GIB could eventually be transferred into the private sector and was designed to accommodate this, despite its explicit policy objective to encourage investment into sectors where market finance was not well-established. The government indicated that fiscal constraints meant that there was limited funding available for the GIB to build on early successes and grow its portfolio and, therefore, in June 2015 the government announced plans to bring private capital into GIB in order to give it freedom to access much greater volumes of capital and have a bigger environmental impact.¹⁵⁰

It was decided that the best option to overcome this barrier was a sale of a majority stake in GIB to private investors, which was formally launched in 2016. The sale was completed in August 2017 with Macquarie Group paying GBP 1.6 billion (USD 2.1 billion) to purchase GIB outright, although the government retained a stake in a small number of assets it values at around GBP 132 million (USD 169 million).

The GIB now operates as the Green Investment Group – bringing together the GIB and Macquarie Capital’s renewable investment team.¹⁵¹ It continues to finance green projects in the UK, but without funding from the

¹⁵⁰ Others held the view that in the short-term there was no shortage of capital and that if the GIB were allowed to borrow it could have overcome fiscal constraints.

¹⁵¹ There have been recent reports that Macquarie on-sold most of the assets at a profit while not taking on the risk for the assets they would struggle to sell. For those they agreed to continue managing them on behalf of government.





government. It now has a more international mandate and is able to invest in established technologies and at all stages of the project life cycle. To protect the GIB's green purpose, the government provided for a "special share" which is held by Green Purposes Company Limited – a company limited by guarantee – which is owned and operated by independent trustees. The GPC's primary power, in its capacity as special shareholder, is to approve or veto any proposed amendment to the green purposes as set out in the articles of association of the GIB.

K.2. MANDATE

Under the Enterprise and Regulatory Reform Bill 2013, the UK Government enacted legislation to ensure that the GIB would always have a 'green' purpose. Five green purposes" were agreed:

- reduction of greenhouse gas emissions;
- advancement of efficiency in the use of natural resources;
- protection or enhancement of the natural environment;
- protection or enhancement of biodiversity; and
- promotion of environmental sustainability.

The initial strategic priority sectors were offshore wind, commercial and industrial waste, energy from waste and non-domestic energy efficiency.

Additionality was also a core part of the GIB's mandate – its investment activities were intended to: (i) encourage others to invest; (ii) not crowd-out other investors; and (iii) invest on terms acceptable to commercial investors.

The GIB also had a set of "operating principles" which formed part of its wider mandate. These were:

- **Green objectives, sustainable finances.** Working towards a "double bottom line", deploying capital to achieve significant green impact whilst generating positive portfolio returns and in doing so, preserving and building its capital base.
- **Enduring impact.** Building a sustainable institution that delivers the long-term impact required by the UK's transition to a green economy.
- **Strategic alignment with government.** Aligning strategic priorities with government green policy objectives and initiatives.
- **Operational independence from government.** Putting management and operational decision making at arms-length from Government.
- **Partnership with the private sector.** Operating in cooperation with private sector players, enhancing private sector provision and leveraging private sector capabilities where appropriate, and not acting where Government policy objectives could be met by private sector provision alone.
- **Minimising market distortions.** Operating consistently within EU State Aid rules.

As noted, the GIB's mandate was constrained by the conditions attached to the European Commission's State Aid approval. Initially, this limited GIB's investment activities to three priority areas (offshore wind power generation, waste infrastructure and non-domestic energy efficiency) and five non-priority sectors (biofuels for transport, biomass power, carbon capture and storage, marine energy and renewable heat). This



was later expanded to include small-scale onshore wind and hydro-energy sectors. Approval was also conditional on the GIB supporting projects on the same terms as other participants in the same transaction (*pari passu*), or on similar terms supported by an expert opinion.

K.3. INSTITUTIONAL STRUCTURE

The GIB was a public company established under the Companies Act, but the UK Government was its sole shareholder until the sale to Macquarie in 2017. The government managed its investment through UK Government Investments (the agency which acts as shareholder of the UK government's arms-length bodies) and the Department for Business, Innovation and Skills, now the Department for Business, Energy, and Industrial Strategy.

This structure provided for the level of control which the UK Government needed over GIB's operational principles and investment mandate, given its role as sole shareholder and the GIB's explicit policy objectives. But it was also designed to provide for sufficient and credible freedoms from government in order to pursue commercial terms and co-invest alongside private capital.

However, the sale of the GIB demonstrates that public ownership – particularly constraints on the stability and security of future funding – can become a constraint. In this case it prevented the bank from growing its portfolio, and was the main rationale presented for introducing private capital.

K.4. GOVERNANCE STRUCTURE

The GIB's Articles of Association and Shareholder Relationship Framework Document (which described the roles of responsibilities in the relationship between GIB and the UK Government) provided the basis of the governance structure. These documents compelled the GIB to accord with corporate governance best practice and comply with the provisions of the UK's Corporate Governance Code.

The GIB Board had 11 members, including seven non-executive directors, and one senior representative from the shareholder (UK Government Investments). The Board was independent, although the Department for Business, Innovation and Skills retained the power to appoint the GIB chair, the senior independent director, and the shareholder representative director. The GIB chief executive, as GIB's accounting officer, was accountable to both the Board and the shareholder, and to Parliament.

The Board was supported by three Executive Committees (investment, portfolio management and risk & compliance) and five Board Committees (audit and risk, chair, nomination, remuneration and valuation), each of which reported its activities in the GIB's Annual Report & Accounts.

Smaller investment decisions could be approved by the Chief Executive (subject to "no objection" raised by the Chief Risk Officer and the endorsement of at least one non-executive Board member), supported by the Investment Committee. Investments or divestments in excess of GBP 50 million (USD64 million) required Board approval, and those in excess of GBP 300 million (USD385 million) required shareholder approval. Transactions were originated by investment teams within GIB.

The Chief Executive and the leadership of the GIB managed the day-to-day activities of the bank, including making and executing operational decisions and implementing the GIB's strategy agreed by the Board.

Since the sale of the GIB to Macquarie, the GPC has become an important part of the governance structure. The GPC does not have any role in the day-to-day operations and management of the GIB, nor approval of each individual investment by GIB or play any part in the GIB's internal investment approval process. However, the GPC tracks the GIB's investments via an agreed information-sharing mechanism in a manner





which allows the GPC to discharge its duties (the protection of the “green” purposes) effectively. The GPC supports the GIB’s right to invest abroad, thereby assisting in the global transition to a sustainable and low-carbon economy. Such investment abroad, however, should not be at the expense of continued investment at home to help ensure that the UK further develops its world-leading green sector.

K.5. CAPITAL STRUCTURE AND SOURCES OF FINANCE

The UK Government was the sole shareholder of the GIB until the sale to Macquarie. It was not permitted to borrow funds from the capital markets. It was allocated GBP 3 billion (USD 3.9 billion) of public funding to invest in the period 2012 to 2015. A further allocation of GBP 800 million (USD 1 billion) was made in 2015 for the financial year 2015-16 to support further investment in green projects. The GIB was exempt from some of HM Treasury’s annual budgeting rules in order to give it greater flexibility in making investment decisions.

The government decided in June 2015 that further public funding was not affordable. Other options were explored with the GIB (including giving it the ability to raise its own debt or equity) but the government decided that the preferred option to enable the GIB to build on what it had achieved was a sale of a majority stake.

K.6. FINANCING ACTIVITIES

The GIB had flexibility to invest across the full capital structure, from debt to mezzanine debt and equity, although it does not offer guarantees to help projects access debt finance (HM Treasury’s UK Guarantees Scheme filled this purpose). The GIB’s mandate allowed it to invest in the construction of new projects or in the refinancing of existing projects where there was a benefit in creating a secondary market. It could invest directly in large projects or programs, and indirectly in smaller projects through funds or developer partnerships. This ‘fund of funds’ business allowed the GIB to invest in a higher volume of smaller projects (including a combined heat and power plant in Sheffield where the investment was managed by the fund’s general partner, Equitix).

It also acted as fund manager and general partner in a fund management business which manages the investment of third-party capital in green infrastructure projects – the GIB Offshore Wind Fund.

All of GIB’s investments were made on commercial terms. This was to demonstrate to other private investors that green investment is commercial and profitable, but it was also a requirement of the GIB’s State Aid approval.

By March 2017, the GIB had backed 100 green infrastructure projects in the UK and committed over GBP 3.4 billion (USD 4.7 billion) across energy efficiency, offshore wind, waste and bioenergy, and onshore renewables. It also leveraged a further GBP 8 billion (USD 10 billion) in private capital, equating to around GBP 2.50 for every GBP 1 invested.

As at March 2017, the GIB’s portfolio was held as follows:

- Commitments by sector: Offshore wind (46 percent), Waste and bioenergy (34 percent), Energy efficiency (14 percent), Onshore renewables (six percent)
- Commitments by product: Direct equity (57 percent), Direct debt (23 percent), Fund investment (16 percent), Managed account (four percent)
- Commitments by stage: Construction (75 percent), Operational (25 percent).



Interesting projects include:

- **The Westernmost Rough Offshore Wind Farm**

Westernmost Rough represented the first commercial deployment of the new, larger 6MW turbine anywhere in the world and was the GIB's first investment in a UK offshore wind project at the construction stage. The GIB acquired a 25 percent stake in the project alongside Japan's Marubeni Corporation (25 percent) and the developer Orsted (50 percent). The GIB stated that "the project's technical and financial innovations... helped improve performance levels and reduce the wind power generation cost, making it significantly more competitive."

The GIB's shareholding was later refinanced by a consortium of lenders with GBP 370 million (USD 474 million) of limited recourse senior debt. The lenders included JBIC, Tokyo-Mitsubishi UFJ, Mizuho Bank and SocGen. The transaction brought in a number of new, long-term financiers to the offshore wind sector.

- **The Galloper Offshore Wind Farm**

The GIB was a cornerstone investor in the Galloper Project – a GBP 1.5 billion (USD 1.9 billion), 336MW wind farm which will generate enough electricity for 336,000 homes. The Galloper financing was pioneering, in that the four equity investors helped to de-risk the project in order to attract a consortium of 12 commercial banks and the European Investment Bank. This was the first time that an offshore wind farm secured lower-cost debt finance before construction started. The Beatrice and Dudgeon projects subsequently adopted the same financing approach.

- **The Southend LED Streetlighting Replacement Program**

Southend-on-Sea Borough Council became the first local authority in England to secure financing from the GIB to accelerate the replacement of its existing streetlights with lower energy alternatives.

Supported by a GBP 5 million (USD 6.4 million) grant from the Department for Transport, Southend BC raised GBP 8.2 million (USD 10.5 million) from the GIB under its Green Loan scheme, which offered UK local authorities a low, fixed-rate financial arrangement over a period of up to 30 years. It was specifically designed to finance public sector energy efficiency projects where repayments were less than the savings realised, thus allowing cost savings to flow to the council immediately.

The GIB standardised the Green Loan investment process to save the public sector time and money in agreeing a financing package for energy efficiency projects.

K.7. PROJECT PREPARATION AND TECHNICAL ASSISTANCE ACTIVITIES

The GIB was not mandated to undertake project preparation or technical assistance. Instead, it was a bank seeking to mobilise via demonstration effects. However, in the waste sector, for example, the GIB commissioned reports to review the various technologies, even though the GIB was meant to leave it to the market to decide on technologies.

The GIB did assist projects sponsors to develop bankable projects, in a similar way that other banks/financial institutions would. This was particularly evident with the investment in the Belfast Energy from Waste plant.





K.8. PERFORMANCE MONITORING

The GIB's performance monitoring framework was designed and agreed with the sponsor government department, the Department for Business, Innovation and Skills. It included metrics for measuring GIB's performance against its key policy objectives, and was published annually. The key metrics covered the following areas:

- Green metrics – such as reduction in greenhouse gas emissions, renewable energy generated, and energy demand reduced as attributable to GIB investments. These metrics are set out in an audited “Green Impact Statement”.
- Mobilisation ratio – this reports the additional capital mobilised as a multiple of GIB capital committed.
- Financial reporting – the GIB was required to report annually on the profitability of its portfolio and its forecast rate of return. GIB had a minimum target return of 3.5 percent pa.¹⁵² Although it never achieved this target in any one financial year, as at the end of March 2017 it was projecting a return of around ten percent assuming all projects were built on time and budget.

Internally, oversight of the performance of GIB's assets was maintained by the Portfolio Management Committee. The Audit and Risk Committee had responsibility for identifying and managing any risks arising from the GIB's activities, including risk relating to its green impact. There was also an internal, but independent, audit function. The Investment Committee members were also on the Portfolio Management and Risk Committees.

Externally, GIB was required to report on its activities and ongoing performance to the shareholder representative (UK Government Investments) on a monthly basis. It also published details of all its investments.

In 2015, the UK Government and the GIB jointly commissioned an independent evaluation of the GIB's activities. The evaluation was intended to review whether the GIB had addressed market gaps in each of its sub-sectors. The review found that the GIB had been successful in addressing gaps in offshore wind (where that GIB has committed around 46 percent of its capital) and waste and bioenergy (where it has committed around 34 percent of its capital), but the evidence indicated less certainty around the non-domestic energy efficiency and onshore renewable sectors. The evaluation also noted that it was not possible to quantify the difference that the GIB made in terms of additional investment, partly because sample sizes were too small in some sectors, and that it could not draw robust conclusions about the GIB's impact on cost of capital for new infrastructure assets, because of the lack of a clear counterfactual case against which it could be measured.

The National Audit Office also carried out a review of the government's handling of the sale of the GIB. It concluded that the government had no criteria for success when measuring the GIB's green impact – as it was felt that this might constrain investment choices and original policy intent was to boost green investment more than green impact.

¹⁵² Given that the GIB's early investments were in equity (57 percent), much of which were in construction assets, a return of 3.5 percent while in start-up mode was unlikely to be achieved. Once construction completed, and operational, the GIB could on-sell assets for significant return, or increase leverage on the project and dividend-up the proceeds.



K.9. KEY LESSONS LEARNED

Being flexible, especially at first, is important

Early on, the GIB leadership decided that if something was in line with government regulations then they would consider it. So, for example, one of the first transactions was for the Drax Power Project, which involved converting a coal plant to biomass, but importing wood pellets from the US. This was clearly controversial, but was within government regulations. The GIB carried out all the carbon calculations etc, imposed strict criteria on the wood that could be used ('waste wood', etc.) before agreeing to the transaction.

The original concept was that the GIB should do transactions that were very green, but not creditworthy. Again, the GIB leadership team rejected this idea, recognising that they needed to be an enduring institution that mobilised third-party funding by investing in transactions with appropriate risk/reward characteristics. Investing in a green, but inappropriate risk/reward transaction would not mobilise the market.

An independent board is critical

The government proposed an independent board. This included green and finance professionals, with just one civil servant. This meant that the board could take appropriate decisions in line with the mandate of the GIB, but with no political interference. The civil servant was important, however, to advise the board on issues that may be important to the government, but he had no right of veto. It also provided protection to the government who, if it was pressured, could genuinely say that the board was independent. The board received proposals for projects supported by local MPs that were not bankable and those were rejected.

Capitalisation – especially the split between debt and equity – needs careful consideration

The GIB was the most capitalised bank in the world, with 100 percent equity. When the government added an extra GBP 800 million (USD 1 billion) equity in the spending review, this was in response to the bank's request to be able to borrow. The government responded by stating that the GIB could have GBP 800 million (USD 1 billion) of equity, and borrow if needed, but only up to, and instead of, the GBP 800 million (USD 1 billion). This was likely a function of government accounting (all debt remained on the government's balance sheet). If the GIB could borrow on its balance sheet, this would have saved government money being invested directly, and could have mobilised further third-party funding. The providers of third-party funding could then undertake due diligence on the bank and its operations, and if successful could help mobilise more funds into the green economy by proving that green investment works.

Medium term commitment of funds was important

The government not only committed GBP 3 billion (USD 3.9 billion) over three years, it also provided above this amount, an operating budget for three years. This meant that, for a start-up, the GIB knew their operating cost funding was committed, and so they could take appropriate decisions regarding resources etc., even if they would not provide an immediate return.

A clear focus on a relatively narrow and well-defined sectors is important

If no sectors were defined, there was a risk that the bank could consider all sorts of 'green' projects and end up being a 'jack of all trades, master of none', and perhaps focus on the 'easier' sectors. The relatively narrow priority sectors forced the GIB to focus on how to mobilise funds into these specific sectors, hiring experts in the field, undertaking market analysis, etc. Off-shore wind was a good example of this, where other institutions had looked at the sector, thought it was too difficult, could not afford to spend a year or more to develop a market that may never happen, and so put it to one side. The GIB did not do that.





Investments should be market led

Before its formation, it was difficult to predict what types of investments the GIB would make. There were a myriad of views as to what the bank would invest in before it was formed. The actual mix of investments was almost certainly not what was predicted. This developed from working with the markets, following extensive market engagement, rather than seeking to force markets to go a specific way. That entailed hiring a mix of finance and industry professionals (equity, debt and funds) that could ensure that the bank could undertake any kind of transaction.

An institution with a significant government stake can improve mobilisation

The 'halo' effect of government ownership helped attract other funders into transactions, for two main reasons:

- for renewables which rely on stable government policies (e.g. feed-in tariffs, etc.), it helps provide comfort that the government will remain consistent on these policies; and
- some banks thought if the government-owned entity invested in a transaction, that the government may support the underlying project if it got into difficulty to avoid the GIB losing money.

Even though the government was under no obligation to do either, the market perceived there was a benefit to GIB's involvement in a transaction.