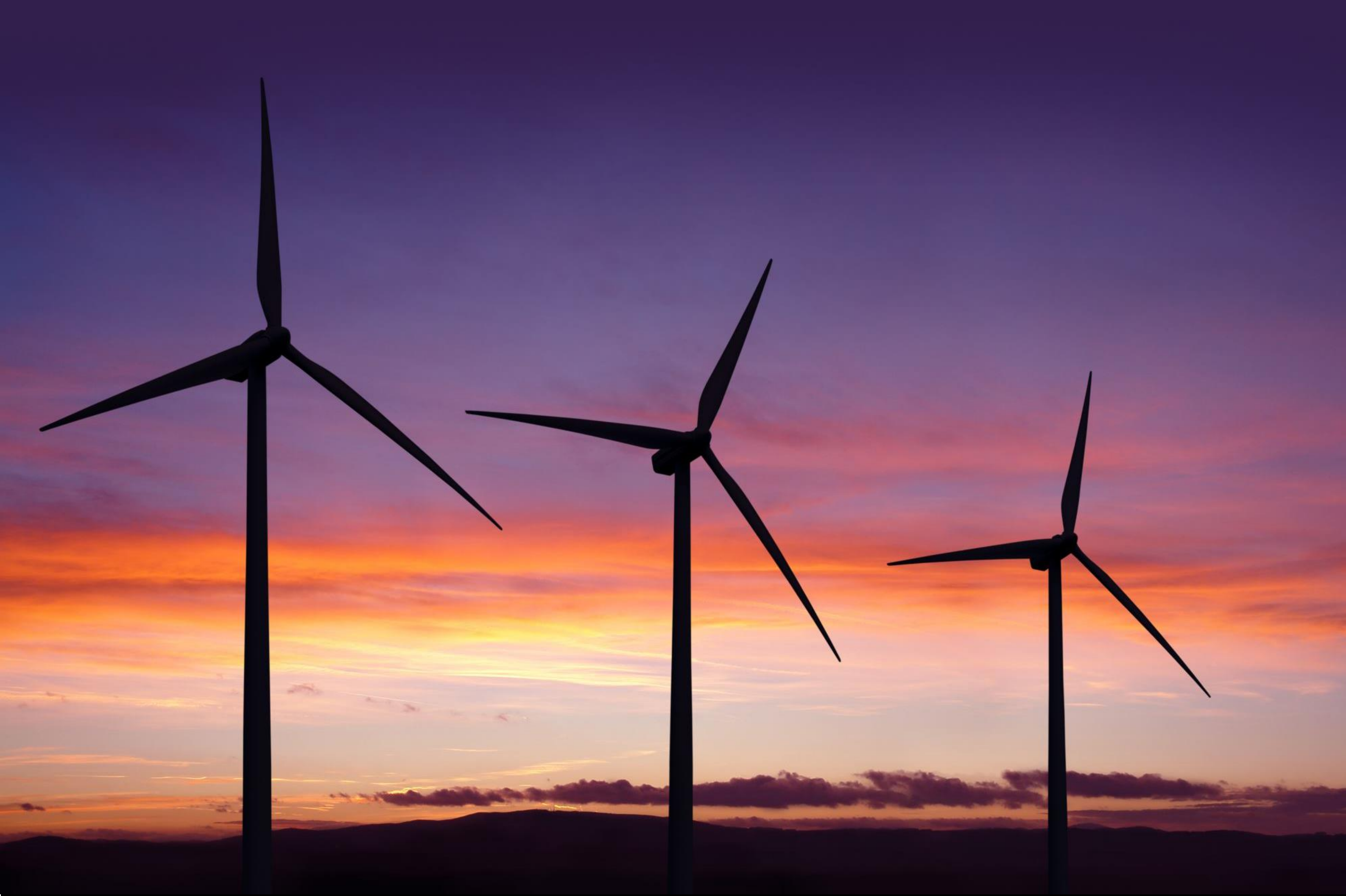

UK Infrastructure Bank Early Learnings Assessment

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Preface

This report provides an early learnings assessment of the UK Infrastructure Bank (the Bank), a government-backed policy bank. The Bank was launched in June 2021 with a mission to increase infrastructure investment in the UK, through partnering with the private sector and local government. It has two strategic objectives: first to tackle climate change in line with the UK government's target to achieve net zero by 2050; and second to support regional and local economic growth through better connectedness, opportunities for new jobs and higher levels of productivity.

On 14 October 2024, the UK Infrastructure Bank Limited (UKIB) was renamed as the National Wealth Fund Limited (NWF). As this report was completed prior to the transition, the NWF is still referred to as the UK Infrastructure Bank, UKIB or "the Bank", throughout.

The Bank is committed to embedding learning and evaluation as an integral part of its operations. The Bank commissioned ICF to undertake this assessment in August 2023, to review its early progress and identify any areas for future improvement. The assessment had three primary objectives:

1. Conduct an initial review of processes and systems that underpin the Bank's triple bottom line objective.
2. Analyse emerging evidence on the role of the Bank in terms of additionality and crowding-in.
3. Develop a proposed framework and methods for future process, impact, and economic evaluations.

Following a scoping phase, the study team collected evidence from a wide range of sources including engagement with Bank staff, an extensive review of internal documents (including deal documentation), interviews with recipients of capital and selected co-investors, two deep dives on the Bank's activity in the digital and energy storage sectors, interviews with central government officials, and development of five case studies focused on the Local Authority Function (covering both Advisory Services and Lending). The research phase of this project concluded in March 2024, and so only projects financed prior to this are in scope of the assessment. Evidence from these sources was synthesised and triangulated to produce a set of findings and recommendations for consideration by the Bank.

Our overarching conclusion from the assessment is that since launch, the Bank has demonstrated an ability to learn and improve its processes and systems in relation to assessing and monitoring impact and additionality. There is good evidence for additionality—particularly in deals occurring from 2022 onwards—and our assessment is that the Bank plays a complementary role in the markets we reviewed. While there is evidence that the Bank has mobilised private finance through its investments, collecting robust evidence that directly attributes crowding-in effects is difficult at this early stage.

This report is structured into six sections:

- First, a brief overview of the Bank and the context for this review.
- Second, the scope of the study and the methods used to collect and analyse evidence.
- Third, findings relating to the structures and processes that the Bank has in place to deliver and measure progress towards its strategic objectives; and an assessment of the extent to which the Bank is a learning organisation and has feedback loops in place to embed learning and enact improvements.
- Fourth, early evidence on additionality and strategic value of the Bank, alongside evidence on whether it is crowding-in/out other investors.
- Fifth, an early assessment of how effectively the Bank is supporting local authorities to plan and deliver infrastructure projects in line with the Bank's mission.
- Finally, recommendations for the Bank in considering suitable approaches for future evaluations.

The authors would like to thank all those who provided invaluable inputs, evidence and insights to this research. In particular, the senior team in the Bank and their external stakeholders across the public and

private sectors. Although the study draws heavily on the interviews conducted, the wealth of additional material provided by the Bank, and wider research, we are fully responsible for the interpretation of the evidence received, the conclusions reached in this work, and any errors that might appear in this report.

1. Overview of the Bank

Policy banks[1] are financial institutions established by governments to promote public policy objectives. They play a crucial role not only in providing counter-cyclical finance and supporting 'catching-up' or 'levelling-up' economic strategies, but also in spearheading major structural transformations toward dynamic, innovative, and net zero economies.

Over the past decade or so, countries like Canada, Australia, and the USA (at state level) have established policy-driven banks or financial corporations, and most OECD nations now have at least one policy bank. Germany, for example, benefits from a strong national promotional institution (KfW), complemented by regional institutions and access to finance from the European Investment Bank (EIB). For policy banks to thrive, they must operate at a scale that matches their ambitious missions and see their mandate as shaping or creating markets rather than merely fixing market failures[2]. Ensuring additionality by complementing—rather than competing with—private finance is crucial, as is mobilising private sector investments to amplify their impact.[3] Finally, policy banks must uphold strong governance and accountability, balance risk and reward effectively, and utilise a broad range of financial products to maximise their value.

Launched in June 2021, the UK Infrastructure Bank (the Bank) is a government-backed policy bank. In the period since launch, it has scaled up its human capital and implemented processes and ways of working, going through a relatively rapid period of organisational development alongside initiating investment deals.

The Bank is a private company that is wholly owned by HM Treasury (HMT) but maintains operational independence. Its mission is to partner with the private sector and local governments to increase infrastructure investment. In addition to a lending facility, it offers local authorities impartial advisory services to support the financial and commercial delivery of infrastructure projects. The Bank has two strategic objectives:

- To help tackle climate change, particularly in making investments that support the government's net zero emissions target by 2050.
- To support regional and local economic growth (RLEG) through better connectedness, opportunities for new jobs and higher levels of productivity.

The Bank's overall financial capacity is £22 billion across its private sector investment and Local Authority Lending Functions. The private sector function can invest up to £8 billion across various asset types, including senior debt, mezzanine, and equity, and can issue up to £10 billion in guarantees. The Bank's Local Authority Function can lend up to £4 billion to local authorities at a preferential rate (gilts + 40 bps). The Bank's overall financial capacity is underpinned by an economic risk capital budget of £4.5 billion,[4] which determines the maximum amount of financial risk that the Bank can take. On an annual basis, the Bank can deploy a maximum of £5.5 billion of its capital.[5] The Bank announced its first investment in October 2021 and as of 29/02/2024 had announced 28 deals in total, investing approximately £2.4 billion into private sector projects and £0.6 billion into local authority projects.

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[1] Variously referred to as investment banks, development banks or infrastructure banks depending on their missions and mandates

[2] See, for example, the work of Mariana Mazzucato and Stephany Griffith-Jones

[3] HMT Green Book defines additionality as '*a real increase in social value that would not have occurred in the absence of the intervention being appraised*'. In this context it is defined as the additional impact that results from the Bank's involvement in a project. See https://www.ukib.org.uk/additionality-ukib-investments-our-approach for more detail.

[4] ICAEW (2023) Mission commenced

[5] UKIB (2022) Strategic Plan articulates an ambition to invest £3 billion through debt, equity, and mezzanine products, with a further £2.5 billion available to be issued through guarantees

The Bank operates to a triple bottom line, where investments must:

- Achieve one or both of its strategic objectives mentioned above.
- Demonstrate additionality – focussing where there is an undersupply of private sector financing and reducing barriers to investment, thereby crowding-in private capital over time.
- Generate a positive financial return with a target set by HMT of an annual return on equity between 2.5 percent and 4 percent by 2025-2026.

The Bank was asked to prioritise five priority sectors: clean energy, transport, digital, waste, and water. In September 2023 it published a private investment strategy update that identified seven areas in which the Bank saw greatest opportunity to tackle problems and shape markets over the subsequent 12-24 months.[6] Although these have been identified as the areas of greatest opportunity, the Bank will still deploy capital in other sectors, as appropriate. The seven sectors highlighted are as follows:

- Short duration energy storage
- Zero emission buses
- Electric vehicle charging
- Hydrogen
- Heat networks
- Port infrastructure for floating offshore wind
- Carbon capture, usage and storage

[6] UKIB (2023) Strategy Update: Private sector investments

2. Study scope and methodology

The Bank is committed to embedding learning and evaluation as an integral part of its strategy and decision-making. This study was commissioned by the Bank to review its early progress and identify any areas for future improvement. Our work complements and augments internal work by the Bank and was conducted in close collaboration with the Impact Team at the Bank. There were three primary objectives for the study:

1. To support delivery of the triple bottom line, evaluating the suitability of processes in place for assessing and monitoring financial return alongside other elements of the triple bottom line (impact on net zero and RLEG; crowding-in private capital).
2. To capture early evidence of the Bank's unique contributions and the ripple effects or changes it is beginning to create, including gauging early signals on additionality.
3. To lay the foundations for a pragmatic yet robust monitoring and evaluation system which facilitates ongoing learning, decision-making and accountability. The Bank has committed to a full impact evaluation of its work towards the end of the current decade and prior to an expected HMT Independent Review by 2029/30 financial year.

The Bank is still at a relatively early stage of development and as such has a relatively small and young portfolio, with a limited volume of drawdowns having taken place to date. As is typical of policy banks at this early point in their evolution, impacts of the Bank's investments will often only materialise after a time lag of five to ten years from the point of financing. Consequently, it is too early to fully evaluate delivery of the Bank's strategic objectives, which demand a longer-term perspective to gauge progress.

Following a scoping phase which concluded in October 2023, the ICF study team gathered evidence from a range of sources (as shown in Exhibit 1, below) in the period to March 2024. Evidence was analysed and triangulated to produce a set of findings. However, it is important to note that our conclusions are based on the evidence we were able to review, the sector deep dives conducted and the review of the two direct equity investments we conducted.

25 interviews with officials from the Bank. This number includes the 14 interviews conducted as part of the scoping phase.	**321 documents were reviewed.** These were a combination of publicly available and internal documents from the Bank, such as specific deal documents, which are not available to the public.
19 interviews with individuals external to the Bank, including government and policy makers, projects in receipt of funding, co-investors and co-financiers and projects that the Bank considered but did not invest in.	**2 deep dives have been conducted on the battery storage and digital sectors.**
4 workshops were conducted with officials from the Bank. These focused on local authorities, impact pathways, strategic added value and long-term evaluation approaches.	**5 local authority case studies have been produced** as the work in this space is slightly separate from the private financing function of the Bank.

Exhibit 1: Evidence sources

Whilst all functions of the Bank are focused on delivering the two strategic objectives (tackling climate change and supporting regional and local economic growth) there are some distinctions between the Banking Function and the Local Authority Advisory and Lending Function. For this reason, the report includes a separate section on the Local Authority Function.

3. Organisational processes to support impact and foster learning

This section provides an assessment of the processes that the Bank has in place to ensure transactions and advisory activities deliver on its strategic objectives. In common with all policy banks, it is important that the Bank has suitable structures, processes, and mechanisms in place to monitor impact so that it can confirm that its approach is robust and continues to meet its mandate. This also underpins the Bank's ability to ensure transparency and accountability, whilst providing opportunities for refining its approach to future interventions. It also provides an assessment of the mechanisms that capture learnings and how effectively the Bank implements changes based on feedback.

3.1 The Bank's high-level Impact Framework provides a good basis to link its interventions to intended impacts.

As part of its overall Impact Framework, the Bank has developed a set of high-level Impact Pathways that, in our assessment, provide a suitable basis to guide the Bank's strategic activities. This was an iterative process that involved senior stakeholders across the Bank. The pathways provide a credible representation of how the Bank intends to achieve its two strategic objectives (tackling climate change and improving economic opportunity and productivity across the regions and nations of the UK).[7] The Impact Pathways follow the key tenets of UK government guidance on how to incorporate evaluation at all stages of policy making, delivery and review.[8] We have proposed a set of augmentations to the Impact Framework that will help the Bank continue to operationalise the Framework.

- First, the rationale for the Bank's overall intervention, to justify the need for interventions clearly and concisely, and frame evaluations in the context of the specific need for public intervention, and therefore whether interventions were successful in addressing that need.
- Second, contextual factors that affect the underlying pathways and how they are expected to affect the impact of the Bank's activities. For example, the digital deep dive conducted in this study illustrated the complex interplay between various external factors (e.g. household take up of fibre broadband) that ultimately influence the achievement of desired outcomes and impacts, and the Bank's specific contribution.
- Third, the underlying assumptions that need to be true for the pathways to be realised as expected and support the full articulation of logic underpinning the causal pathways.

We note and endorse the Bank's intention to continue refining these Impact Pathways in light of changing policy aspirations and market factors.

3.2 The Bank should now complete the development of sector-specific Impact Pathways.

The next step for the Bank on the Impact Framework is to complete the development of sector-specific Impact Pathways, including for its local authority advisory engagements. This work is underway and will help to shape future activity at a sector level and to tailor future reporting requirements to gather meaningful data that focus on impact.

The Bank recognises that it is important for sector-specific Impact Pathways to reflect the intervention logic for each sector (including causal pathways, impacts and outcomes) in order to target investments that are aligned with its triple bottom line and recognise the agency and role of the Bank in delivering impact. In a similar manner, the pathways for delivering impact through Local Authority Lending are slightly different to the Impact Pathways for private sector deals completed by

[7] UKIB (2023) Impact Framework. Available at: UKIB-Impact-Framework.pdf
[8] HMT (2020) The Magenta Book. Available at: https://www.gov.uk/government/publications/the-magenta-book

the Bank, although the ultimate outcomes being aimed for are the same in terms of impact against the Bank's strategic objectives.

3.3 The menu of metrics the Bank has developed provides a comprehensive basis to monitor delivery against its triple bottom line; targeted deployment of relevant metrics is recommended.

Our overall assessment is that the suite of 31 metrics developed by the Bank to track impact provide a comprehensive menu to monitor the progress of the Bank towards delivering its triple bottom line. There are metrics at different stages in the Impact Framework (outputs, intermediate outcomes, and outcomes) and at different levels of granularity (organisational, portfolio and deal level).

However, judicious selection of metrics at deal screening is required to measure the impact of individual deals, targeted on the intervention logic for each deal. Based on our assessment of deal documents, the Bank has developed its monitoring systems and reporting requirements and there is evidence of learning from early deals in requests for data from projects funded in 2023/24 financial year.

Across the range of engagements which the Bank carries out there are different requirements in place with regards to the process undertaken in capturing metrics. Reporting requirements laid out by the Bank will incur administrative costs for clients, and the ability to service data requests varies across clients. The Bank recognises this, and our judgement is that overall, it strikes a balance between the administrative costs for counterparties of reporting requirements and the imperative of the Bank to track and demonstrate impact.

At a deal level (and for advisory engagements), these metrics should be guided by a clear intervention logic for each deal. In other words, what impact is the Bank trying to achieve through its activity? We recommend that once sector-specific impact pathways are finalised, the Bank considers whether there is a need to add to this set of metrics to capture the impact of its interventions at sector level.

3.4 There is evidence that the Bank is making efforts to foster organisational learning.

The Bank has developed tools to capture learning within teams and across the organisation which should now be embedded as part of the routine operation of the Bank. There is senior executive support for mainstreaming feedback loops and ensuring that the Bank is a learning organisation.

In recognising the need to be agile, the Bank has prioritised the establishment of feedback mechanisms in its efforts to remain responsive to market need. Our assessment is that the sector analysis and learning forums conducted by the Bank are a suitable and useful way to identify and share learning. This has resulted in an evolution of the approach to additionality and impact in both the digital and energy storage sectors, as evidenced through the two sector deep dives we conducted.

Based on the evidence we reviewed, our assessment is that a culture of learning and continuous improvement has been embedded into the Bank's operations since its inception. Looking ahead, the Bank should build on this and further systematise its processes to ensure learning is shared across sectors and functions.

4. Early evidence on additionality and crowding-in

Additionality forms part of the Bank's triple bottom line, which is the Bank's first operating principle. According to the Bank's foundational documents, the Bank's activities are not only expected to be additional to the market, but also crowd-in private sector financing over time.

"To maximise its impact the Bank will focus on intervening where its 'additionality' to the market is greatest. The Bank will invest to make projects happen that would not have happened otherwise or to bring projects forward to meet net zero or regional and local growth objectives. The bank will limit its exposure to investments that could already be fulfilled by the private sector" - UKIB Policy Design, March 2021.

This focus on additionality is a key feature of policy banks worldwide. While there is no single common definition of additionality, the generally accepted notion is that policy banks' interventions "*should make a contribution beyond what is available in the market and should not crowd out the private sector*".[9] Policy banks can contribute to the projects that they finance in several ways:

- Providing the necessary scale of financing required for the project to go ahead, which might not be available from private sources alone.
- Improving project economics through, for example, the cost of their financing or by offering financing on more suitable terms (e.g. longer tenors, flexible amortisation profile etc.).
- Crowding-in other investors/ financiers through the quality stamp/ signalling effect of their due diligence processes, 'halo' effect of their participation or via specific de-risking instruments (e.g. guarantees, first loss pieces).
- Improving project quality – for example providing the advice and technical contributions that lead to improved operational performance, better outcomes and impacts, and/or stronger environmental, social, and corporate governance aspects.

On crowding-in, the Bank has been set a high bar. One of the Bank's investment principles is "*to crowd in significant private capital over time*." Furthermore, HMT has set the Bank a target to crowd-in £18 billion of private investment. It is in the mandate of most policy banks to avoid crowding-out; but there is usually no (explicit) equivalent requirement to promote crowding-in. However, it is common for such banks to consider mobilisation of finance or even crowding-in effects in assessment of additionality. Many International Finance Institutions (IFI's)/ Multilateral Development Banks (MDB's) have specific targets related to private finance mobilisation or co-financing, but these concepts are distinct from the concept of crowding-in. For example:

Asian Development Bank	ADB's Strategy 2030[10] aims for "a substantial increase in long-term co-financing by 2030, with every $1 in financing for its private sector operations [to be] matched by $2.50 of long-term co-financing". Long-term co-financing includes parallel loans and equity linked to ADB financing or advisory activities, B loans, uncovered portions of loans guaranteed by ADB, parallel funds, and headroom relief arising out of risk transfer arrangements. It excludes Trade Finance and Supply Chain Finance.
African Development Bank	Sets annual goals for co-financing. According to the latest Annual Report, in 2022, the volume of active co-financing reached USD 1.79 billion (UA 1.34 billion), 124 percent of the target of USD 1.41 billion (UA 1.06 billion).

[9] MDB Harmonised Framework for Additionality endorsed by the G7 and the G20 in late 2018.
[10] See ADB Strategy 2030.

European Bank for Reconstruction & Development (EBRD)	Sets scorecard target for Annual Mobilised Investment (AMI) of around 10 percent of business volume. Uses the term 'resource mobilisation' and regards it as an element of their financial additionality. In early 2024, the EBRD adopted a new total mobilisation metric to report on its overall mobilisation activities. Total mobilisation is a comprehensive metric that includes private, public as well as direct versus indirect mobilisation.
European Investment Bank (EIB)	EIB considers 'crowding-in' as an element of its non-financial contribution in its Additionality and Impact Management (AIM) framework. Within the AIM framework, each aspect of EIB's non-financial contribution (including crowding-in effect) is ex-ante rated as low/fair, good, very good or excellent. It assesses the extent to which the EIB's involvement has a significant impact on other financiers' (whether public or private) decision to commit to the operation. As such, each operation's potential for crowding-in is systematically assessed in a qualitative manner. The EIB does not have targets for crowding-in or private finance mobilisation, it however provides quantified estimates of leverage, multiplier and amounts of investment mobilised as part of specific EU mandates such as InvestEU using defined methodologies.[11]
Global Environmental Facility (GEF)	Seeks to mobilise additional finance. Mobilised finance is recorded as "co-financing" in GEF project documents. GEF has set an ambition[12] for its "overall portfolio to reach a ratio of co-financing to GEF project financing of at least 7:1, and for the portfolio of projects and programs approved in Upper-Middle Income Countries and High-Income Countries that are not Small Island Developing States or Least Developed Countries to reach a ratio of investment mobilized to GEF financing of at least 5:1. GEF defines[13] co-financing as "financing that is additional to GEF Project Financing, and that supports the implementation of a GEF-financed project or program and the achievement of its objective(s)" and investment mobilised as "Co-Financing that excludes recurrent expenditures".
International Finance Corporation	Similar to EBRD, targets long-term mobilised finance but with a much greater mobilisation ratio of around 40 percent. In common with EBRD, uses the term 'resource mobilisation' and regards it as an element of their financial additionality.

According to its foundational documents, the Bank's activities are not only expected to be additional to the market, but also crowd-in private sector financing over time. Although crowding-in can occur at the point of an individual investment, it also happens in the longer-term, and at a broader scale, as institutions contribute to the de-risking or shaping of asset classes and markets.

Given the early-stage nature of this assessment, longer-term crowding-in effects cannot yet be measured. Therefore, for this assessment, the term 'private sector crowding-in' is specifically defined as the financing provided by private entities on commercial terms where evidence has been gathered directly attributing it to the Bank's involvement in a deal.

As part of this study, two sector deep dives were conducted into the Bank's investments in energy storage and in the digital sector. These involved a detailed review of deal documentation, a wider

[11] See InvestEU Leverage and Multiplier Effect Calculation Methodology.

[12] See Global Environment Facility Policy on Co-financing.

[13] See Global Environment Facility Guidelines on Co-financing.

review of market characteristics and semi-structured interviews with both internal and external stakeholders. A brief summary of the Bank's activity in these sectors — and the policy rationale for investments made — is provided in the text boxes below and overleaf.

Energy Storage

The British Energy Security Strategy set out ambitions for rapid scale-up of renewables (up to 50GW of offshore wind by 2030 and up to 70GW of solar by 2035). Storage supports the integration of intermittent renewables onto the grid, reducing the need for their curtailment when supply exceeds grid capacity and providing wider stabilisation. Recognising the critical role of electricity storage in the net zero transition, the DESNZ Smart Systems and Flexibility Plan (2021) notes that substantial increases in system flexibility — encompassing storage, interconnectors, and demand side response — are necessary to achieve the decarbonisation needed for the sixth carbon budget (2033-2037).

While the government has not set a specific target for electricity storage deployment, the National Grid Electricity System Operator forecasts a demand of up to 29GW by 2030 and 51GW by 2050 to match the renewable generation's anticipated growth. Achieving these objectives will require significant investment in a diverse technology mix of storage solutions that cater to different storage durations — short-term and long-term, each of which provides different benefits.

Although the UK's battery project pipeline has grown both in terms of volume and scale of projects during the last couple of years, several barriers hinder the realisation of an investment pipeline of the scale required to deliver policy objectives for the scale-up of renewables. These barriers include market capacity, revenue risks, perceived policy risks and risks associated with some of the nascent technologies.

Consequently, the Bank has conducted extensive market engagement, and institutional learning from its activities, to understand the role it can play in supporting investments into the sector and has targeted a number of levers, including:

- Increasing financing available to projects to support scale and speed of deployment.
- Provide signals and comfort to a wider pool of banks and institutional investments in non-contracted and complex revenue streams.
- Support nascent long-duration technologies while policy and regulatory certainty is developing.
- Increase market confidence by acting as a cornerstone investor for new and evolving technologies.

The Bank entered the storage market in 2022 and as of March 2024 had signed a mix of debt and (indirect) equity deals amounting to £322m across four projects.

Digital

Increasing access to gigabit-capable broadband (download speeds of at least 1Gbps) across the UK has been a priority policy for the UK government for over five years. It forms part of the current levelling up policy agenda in increasing regional and local economic growth. However, gigabit-capable broadband roll out is capital intensive and in more rural parts of the UK can be uneconomic for private investment due to the sparsity of customers.

In February 2022, the government announced a revised target for gigabit-capable broadband to be available nationwide by 2030 (to "at least 99%" of premises). Delivering this target will include a combination of full-fibre, hybrid fibre-wireless solutions or 5G wireless networks. The government sees altnets[14] as playing a key role in achieving this target, particularly by supporting roll-out in rural and hard to reach areas.

Since inception, the Bank has made significant investments in the digital sector and has committed over £1bn to support roll-out of full-fibre in the UK by March 2024 across seven projects.

- The Bank's first three investments in the digital sector focused on supporting roll-out of full-fibre broadband to underserved areas. At the time however, the Bank had yet to develop/formulate its formal approach to impact in the sector, given that it was less than a year old.
- Starting from the second quarter of 2022, the Bank began to refine its approach to impact, using detailed postcode analysis to better identify areas where fibre roll-out could yield the most significant benefits. This new strategy pinpointed locations with low broadband connectivity but higher skill levels, and high potential for productivity gain. This refined approach was crystallised with the CityFibre investment, leading to the development of a framework for investments in the digital sector.
- The framework articulates the Bank's support for projects rolling out broadband to Ofcom area 3 (where the Bank saw acceleration potential and therefore high additionality) and areas identified by the Bank's internal analysis as likely to deliver greatest impact.
- The Bank subsequently integrated this strategic framework into later digital investments, with funding explicitly linked to chosen postcodes that align with the Bank's impact considerations.
- Following steers from HMT, the Bank's future investments will be aligned with BDUK priority areas.

4.1 The Bank's mechanisms for assessing additionality have been refined and improved since launch and now provide a structured and robust approach.

The evidence from our review of more recent deals (2022 onwards) in both digital and energy storage sectors show a systematic assessment and rating of additionality. Since launch, the Bank has evolved its approach based on learning and reflections from early deals as well as drawing on practices of peer institutions.

In October 2022, the Bank published its approach to additionality, highlighting its commitment to transparent and rigorous assessment of additionality. In May 2023, the Bank conducted an internal review of its approach to assessing additionality. This review contributed to several organisational learnings and improvements including:

- Development of a tool to assess additionality in a consistent and structured fashion.

[14] Altnet is a portmanteau of "alternative network." It refers to a telecommunication network that operates independently of traditional, incumbent telecommunications companies. Altnets typically deploy their own infrastructure, such as fibre optic cables or wireless towers, to provide services to consumers and businesses.

- Requirement to hold a formal cross-team meeting to build consensus on additionality narrative and rating.
- Standardised structure of additionality narratives covering (i) the investment barriers relevant to the deal; (ii) the counterfactual (what would happen without the Bank's involvement); and (iii) how the Bank can maximise its value add on the deal.
- Grounding deal level assessment of additionality in wider sector context and a set of decision criteria (developed within sectoral frameworks).
- Building a more nuanced and in-depth understanding of how relevant markets have matured and scaled, to make more meaningful assessments of how the Bank can maximise additionality at a sectoral level.

These additionality reviews resulted in an improvement in the additionality assessment in deal documents. The first deals concluded by the Bank did not always receive an explicit additionality rating nor consideration of a counterfactual scenario, which is not surprising given that these were conducted prior to the establishment of the Impact Framework and in the absence of many of the processes that the Bank has now established.

However, the later deals in the energy storage sector showcased reasoned and well-supported ex-ante additionality assessments. Reflections of the specific recommendations emerging from the internal review (e.g. standardised structure of additionality narratives) are evident in the deal documents post-May 2023. This provides tangible evidence of the Bank's commitment to learning and evaluation.

Further refinements would strengthen the rigour and robustness of the Bank's additionality assessments such as documenting the timing of the Bank's involvement in the funding process, distinguishing between barriers to investment and barriers to financing, and making improvements to the additionality tool by allowing for uncertainty and nuance and developing rubrics for additionality ratings.

4.2 Our assessment is that the Bank pays due consideration to additionality, and there is evidence of additionality, especially in later deals where the narratives and evidence are more systemically captured.

Additionality is evident for the two debt deals we reviewed in the storage sector. Interviews highlighted the sector's unique challenges, including a nascent and developing debt market, and the specific form of merchant risk inherent to energy storage. In these instances, the Bank's financing was clearly additional as traditional debt financing options were either less suitable or would have necessitated more complex, time-consuming arrangements involving multiple banks with smaller ticket sizes. It is also unclear whether borrowers were in a position to secure financing from these sources, as the team were not provided with Memorandums of Understandings (MoU's) or any other evidence of concrete agreements with alternative financing providers.

For (indirect) equity investments in storage, the picture remains incomplete as the funds in question have yet to reach their target total capital raise. However, the current fundraising environment is challenging for storage funds due to a combination of the macroeconomic climate and sector specific developments (e.g. recent dip in revenues of battery storage projects and policy uncertainty). In this context, financing in equity markets for storage projects is likely to be additional.

As far as the digital sector is concerned, additionality of financing from the Bank is evident in deals signed during 2022 and 2023. This period was characterised by stretched debt markets and worsening conditions. In this context, the Bank stepped in to fill this gap, enabling financial closure for several deals that might otherwise have struggled to secure necessary funding.

Evidence relating to the early fibre deals signed in 2021 provides reasonable grounds to presume that the Bank's financing was necessary. Internal reports from the Bank and market insights gathered at the time, highlight the challenges being faced by certain altnets in raising adequate financing on suitable terms from the market. However, additionality cannot be definitively established from available documents and interviews—and confirming additionality ex-post is complicated by a dynamic financial landscape, a lack of direct insights from financial advisors and commercial banks involved, and the nascent stage of the Bank's additionality assessment methodologies. The updated additionality approach and evidence threshold that has been in place since 2023 mitigates the risk of evidence gaps arising for future investments.

The Bank believes that it has played a role in accelerating roll-out and promoting competition in the sector, firstly by supporting altnets (which has led incumbents to aggressively accelerate their roll-out plans) and secondly by accelerating fibre coverage in rural, hard to reach areas, under-served, or deprived areas by linking its financing to roll-out in these areas. Ex-post reporting by projects supports this and provides evidence that the Bank's financing has supported the delivery of full fibre to underserved areas leading to significant customer uptake. However, longer-term impacts of increased connectivity on regional and local economic growth will take time to materialise.

The additionality of the Bank's financing is evident in the two other investments reviewed by the team outside the deep dives, which were its two direct equity investments. Both transactions were inherently risky and Bank financing filled a gap (in what is commonly referred to as the 'valley of death') which unlocked financing from other sources.

4.3 The assessment highlights the Bank's complementary role in markets: finding no evidence of any crowding-out effects

Our review of available documents shows that the Bank takes due care to avoid crowding–out other lenders or investors. Although the Bank can offer lower prices to projects than commercial markets, subject to the UK's subsidy control regime, it had not done so in any of the projects reviewed, participating in deals on a *pari-passu* basis. As such, the Bank has been a price taker on deals and actively avoids situations where it is competing with commercial lenders and investors on price. Furthermore, the Bank uses scale-back options in deals i.e. the option to scale back its commitment to a minimum amount if external fund raising is successful. Interviews with the Bank suggest that there have been actual instances where it has scaled-back its financing to the extent it was not needed as the debt books built up.

Moreover, project interviews suggest that despite the potential availability of financing from alternative sources, there was no crowding-out of other lenders in the two storage deals that had taken place at the time of the project. This is plausible given the limited debt pool of lenders in the battery storage sector and the market not having reached maturity (at the time) to offer flexible financing options.

4.4 Attributing crowding-in effects to the Bank is challenging at this early stage; however, there is discernible evidence of the Bank's role in mobilising private finance.

Evidence suggests the Bank has unlocked significant private capital through the projects analysed, by being additional and therefore enabling projects to go ahead. For this evaluation, "private sector crowding-in" specifically defined as the financing provided by private entities on commercial terms where evidence has been gathered directly attributing it to the Bank's involvement in a deal. Crowding-in occurs when private financiers decide to invest in a project or deal specifically because a policy bank is involved. The presence of a policy bank effectively reduces the investment's risk or improves the risk-adjusted returns to a level acceptable to private investors. However, attributing a crowding-in effect directly to the Bank is challenging as it depends on how the fund-raising process is organised. For example, often lenders might not find out about the Bank's involvement in a project until it is quite late in the process. As previously indicated, crowding-in typically takes place through several mechanisms, including the signalling effect of policy banks' due diligence processes, 'halo' effect[15] of their participation or via specific de-risking instruments (e.g. guarantees, first loss pieces). However, these 'market shaping' mechanisms take time to achieve impact and the Bank remains a relatively young institution with a relatively small portfolio at the time of this report. Early evidence from the Bank's involvement in the digital sector shows the Bank's investment as having some signalling effects on the market and these should continue to materialise as it builds its portfolio and experience. Moreover, when this review took place, the Bank had not yet exercised its full suite of de-risking tools.

Given these complexities, the Bank has adopted a pragmatic approach for monitoring purposes, capturing private financed mobilised instead of crowding-in, adopting the OECD Development Assistance Committee (DAC) methodology.[16] This approach is consistent with similar institutions. By this metric, the Bank had mobilised over £10bn from the £3bn it had deployed as of March 2024. Indeed, crowding-in should best be assessed via evaluation exercises due to the complexities and practical challenges involved. And even so, as the present evaluation demonstrates, it can be challenging and involves an element of subjectivity.

OECD DAC's approach to measurement of direct private finance mobilisation

The OECD DAC methodology for measuring the amounts mobilised from the private sector was developed under a mandate from the 2014 DAC High Level Meeting. The main principle of the OECD methodology for measuring mobilisation is a direct causal link between an official intervention and private investment.

The OECD has progressively developed instrument-specific methodologies covering seven instruments: (i) guarantees (ii) syndicated loans (iii) shares in collective investment vehicles (iv) direct investment in companies (v) credit lines, (vi) simple co-financing arrangements and (vii) project finance schemes.

Each instrument has an implicit assumption that informs attribution. For example, in the case of guarantees, the OECD method makes "the implicit assumption…that the private investor would not have provided the loan, equity or other finance without the official guarantee." For syndicated loans, "the implicit assumption is that the private investor would not have provided the loan without the official sector involvement as an arranger or as a participant."

Crowding-in also happens over time and can be better evidenced at a sectoral level looking at capital flows. The Bank's additionality tool also focusses on gathering evidence to demonstrate additionality, rather than necessarily prove crowding-in effects. Looking ahead, it may be useful for the Bank to better systemise its collection of crowding-in evidence, structured around the mechanisms highlighted above to provide a stronger narrative.

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[15] Halo effect refers to the general perception and confidence-building through the presence of a reputable policy bank in a particular market or association with a reputable institution (in the case of a specific project) whereas the signalling effect involves a more specific and direct indication of a project's quality, credibility and viability based on a comprehensive and rigorous due diligence.

[16] The OECD DAC methodology is described here

Despite these measurement challenges, the assessment finds evidence of direct, project-level, crowding-in across several projects:

- The use of guarantee schemes by the Bank is a direct mechanism through which the Bank can mitigate risks for other lenders and thus crowd them in. The Bank had issued one guarantee at the time of this project, and contextual evidence, plus evidence from the documentation, suggests a crowding-in effect, not only for the bank finance guaranteed, but also additionality equity that was contingent on the debt raise.
- As far as direct equity investments are concerned, the evidence suggests a crowding-in effect due to capital provided by the Bank, its signalling effect in providing comfort to other investors (e.g. in de-risking potential perceived regulatory or policy uncertainty), and a view that the Bank takes a long-term strategic commitment to its investments.

5. Local Authority Advisory and Lending Function

This section provides an initial assessment of the Local Authority Advisory and Lending Function. It reviews the evidence for the early impact that this function of the Bank has achieved and provides some topics for consideration.

The Bank's Local Authority Function works with local authorities through two engagement types.

i. Advisory services provided to local authorities at no charge, normally comprising workshops and targeted advice which are held with the local authority along with key potential delivery partners and other stakeholders to explore a range of factors needed to increase the ability of potential infrastructure projects to be financed. These advisory services are designed to make use of the significant level of experience and understanding within the Local Authority function in the commercial and financial structuring of infrastructure projects working alongside local authorities.

ii. Lending offered to help finance local authority infrastructure projects that are aligned with the Bank's strategic objectives. The lending offered to local authorities by the Bank is set at a lower rate than other available sources of funding which local authorities can access most notably the PWLB. The rates of gilts + 40 basis points offered by the Bank is at least 40 basis points cheaper than base rates offered by the PWLB. Four lending deals had been completed by the Bank by March 2024, with this evaluation focusing on the two deals completed in 2023 with the Greater London Authority (GLA) and Transport for London (TfL, a subsidiary of the GLA).

Following consultation between the Bank and local authorities, four priority areas were identified in which interventions could address challenges facing local authorities that were aligned with the Bank's mission, namely:

Retrofit	In this sector, the Bank works with local authorities to explore delivery models to upgrade previous constructions along with equipping authorities with advice on how to effectively carry this out across private and public sector segments of the construction industry.
Heat networks	The Bank works with local authorities to provide advice around how heat networks can be financed along with delivery and planning considerations which are required to put these in place.
Transport	In this area, the Bank works with local authorities to find methods to develop existing bus and train fleets to zero emissions vehicles. The Bank works with local authorities to assess effective delivery options along with scenario planning to explore methods which can be undertaken to bring this about.
Place-based infrastructure	The Bank provides advice to develop investable business cases and lend directly to mixed infrastructure projects.

5.1 There is some evidence that local authority advisory engagements have delivered positive impact; looking ahead the Local Authority team will likely need to prioritise its advisory engagements.

We conducted five case studies from the portfolio of local authority advisory engagements, which highlighted three areas of impact for local authorities.

- Refining and narrowing down commercial and financial options and deciding where effort should be focused.
- Actively progressing the identified project to a position where it was more financeable than at the outset, including consideration of delivery options and scenario planning.
- Consideration of the optimal mix of financing which could be used and the role of the Bank's lending as part of that mix.

While the Bank collects informal feedback from its advisory clients, there is currently no systematic approach to post-engagement reviews with local authorities. However, the Bank has plans to implement a more structured approach to eliciting feedback and we recommend that this is prioritised to continue the development of the Local Authority offer and maximise future impact.

Given the success of the Bank in raising its profile and developing its advisory offer it is likely that demand for advisory services will grow, with an implied challenge for the Bank to prioritise which local authorities with whom to work. While the Bank was previously focusing on generating a high volume of engagements there is potential for demand to outstrip Bank capacity. We suggest consideration of three factors in prioritising engagements:

a. Impact potential. How likely is it that the Bank's engagement will generate positive change in the local authority project pipeline and increase the financability of proposed projects? This will be aligned to the Bank's strategic objectives.
b. Need. To what extent is the local authority capacity and capability constrained and would benefit from support from the Bank?
c. Geographical spread. How do the advisory engagements meet the Bank's objective of supporting regional and local economic growth across the UK and distribute potential benefits across different types of local authorities?

5.2 Rates, tenor, and structure of lending are important factors in the attractiveness of securing lending from the Bank, which can enable projects to proceed at lower financial risk, at greater scale and more robustly.

The two lending deals reviewed (see box below) were concluded during the period of this study, meaning that it is too early to review the impact of the deals, which are expected to become evident over a longer timeframe. However, on the basis of interviews conducted and the documentation reviewed there is good evidence that the Bank's lending is aligned with its mandate, with a clear rationale.

Local Authority Lending spotlight

Transport for London (TfL)

- The capital given to TfL was designed to help upgrade the existing Docklands Light Railway (DLR) rolling stock and is hoped to not only directly reduce emissions by putting in place more sustainable and efficient vehicles but also to increase connectivity.
- This improved connectivity in turn is anticipated to lead to improved access to a part of London which faces significant economic constraints in one of the poorest regions in the UK.

Greater London Authority (GLA)

- London Treasury Limited (LTL) operating as the treasury arm of the GLA, will use the capital provided by the Bank to help fill a large portion of the funding they sought to raise for their Green Finance Fund (GFF).
- The Bank's capital provided an anchor contribution to the fund, ahead of private capital (which contributed the remaining 60% of the fund).

Local authority stakeholders interviewed noted that the rates offered by the Bank were very competitive when compared with alternative funding sources. As the tenor of typical deals is very long term (40 years in the case of the loan agreement with TfL and 25 years in the deal agreed with GLA) and a rate which is at least 40 basis points lower than potential alternatives, it could represent significant savings for large projects. With many local authorities facing challenging financial circumstances, this cost saving could enable sustainable investment in transformative projects alongside delivery of standing statutory responsibilities.

Local authorities who received financing from the Bank noted that there was more flexibility in the structure of the lending agreement when compared with potential other funding sources. Interviewees commented that when setting up the agreement, the Bank allowed local authorities to have custom tenors agreed. Allowing the date when the loan agreements started and finished to be customised meant that the agreements could identify specific gilts to be targeted (although no longer than the underlying asset lives) and gave local authorities the opportunity to make significant savings by using more affordable gilts.

In addition, the Bank requires financial analysis of the specific projects being funded as part of its Local Authority Lending process, which is not the case with PWLB financing. Whilst this may increase the administrative burden on local authorities it helps to provide independent due diligence prior to finalising the deal. Interviewees from local authorities in receipt of Bank financing commented that the timelines overall to get the loan agreements in place were not unreasonable and the Bank worked closely with their counterparties. A future consideration for the Bank when providing lending to regional local authorities is the more limited internal capabilities and capacity that smaller local authorities have and the additional support that may be required to close loan agreements. The Bank can support this by enabling easy replication of deal structuring, drawing on learnings from its transactions with larger authorities.

Interviews with Bank staff, local authorities and central government officials also highlighted the time taken between initial interaction and deal closure—and the importance of working in partnership over that period. The synergy between the advisory and lending service in developing investible projects with local authorities is an important enabler of this long-term partnership working for local authorities. This is a key area in which the Bank can provide added value to local authorities.

6. Considerations for future evaluations

The Bank recognises the importance of monitoring and evaluating its activities to improve its processes and maximise impact—and is developing a framework for future evaluation activity. The details of the approach to future evaluation will need to evolve as the scope of the Bank's activities develops and the growth and shape of its project portfolio changes. A companion report provides recommendations on the scope, challenges, analytical methods and data requirements the Bank should consider in future evaluations. In broad terms, future evaluation activity will need to comprise three strands:

- Process evaluation that considers aspects which are outside the scope of the current study, such as governance arrangements, and any changes to existing processes made following the study, or in response to experience or new circumstances. As well as their summative role, the evaluations will have a formative role in identifying any potential scope for improving processes.
- Impact evaluation of the Bank's evolving lending portfolio and its complementary activities. As well as assessing the additionality of the portfolio, evaluations will need to assess whether projects are on course to deliver their planned outputs, outcomes and impacts set out in the Impact Framework. This will inform whether corrective actions are required to improve the effectiveness of different interventions.
- Economic evaluation to assess the extent to which evidence on the Bank's financial performance and the impacts of its activities on climate change and local and economic growth objectives indicate that it is delivering value for money in relation to the resources deployed.

However, evaluating the Bank's impact presents challenges, particularly in applying econometric methods and accounting for the long-term benefits. This is because many of the Bank's impacts are not likely to fully materialise until well beyond 2030, adding complexity to the evaluation process.[17]

6.1 Our recommendation is that future impact evaluations are based on a robust theory-based approach using process tracing and contribution analysis.

Impact evaluation design needs to be based upon considerations of feasibility, methodological robustness, cost-effectiveness, and proportionality. The most robust designs are based upon establishing a comparison group to provide a counterfactual case. Our assessment is that a counterfactual impact evaluation in this context is not realistic given the challenges of establishing a meaningful comparison group. Rather, a theory-based approach using process tracing and contribution analysis[18] would provide a robust methodology that is aligned with good practice in UK government evaluations.[19]

6.2 An economic evaluation will only be feasible towards the end of this decade.

A meaningful economic evaluation will only be feasible towards the end of this decade and likely based on a socio-economic cost-benefit analysis. Costs will include operating costs, opportunity cost of capital and defaults/estimated credit risk on outstanding loans. Benefits will focus on financial returns from investment and the value of carbon reduced or abated, productivity benefits and local growth.

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[17] The Bank is not alone in facing these challenges, which are shared by other policy banks and central government departments.

[18] Process tracing utilises a set of formal tests to examine the strength of evidence linking potential causes to the changes and tests alternative ideas about how changes may have arisen. Contribution Analysis is a structured approach that can be used to demonstrate whether the Bank's interventions were an important influencing factor in driving change: at project, sector, and market level.

[19] As detailed in HMT's Magenta Book https://www.gov.uk/government/publications/the-magenta-book

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