



Innovate  
UK



# Mobilising local net zero investments:

challenges and  
opportunities for local  
authority financing

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# Opening remarks



This partnership with the GFI is about understanding what is needed to help all local authorities to step up to the net zero opportunity, and about supporting the creation of pathways for innovative green finance to wrap around innovative technical solutions.

This report summarises the project's initial 'discovery' research phase. It provides a handful of practical guidelines for local authorities regarding the net zero funding available in the short term and, importantly, aims to spark engagement around future solutions that can bring public and private capital together."

**Rob Saunders**  
Challenge Director,  
Prospering from the Energy Revolution

Innovate UK



Local authorities can play a transformative role in achieving the UK's national net zero ambitions, with 82% of emissions within their scope of influence. But local authority budgets are stretched, inflation is leading to increasing costs including rising energy bills, and there are not yet clear pathways to finance net zero projects at both the regional and household level.

We hope that this report provides a useful summary to local authorities of the technical and financial solutions currently available to them, and the policy and regulatory support that underpins local investment in energy and climate-smart infrastructure, to help to drive more investment towards place-based net zero projects."

**Dr Rhian-Mari Thomas OBE**  
Chief Executive Officer

Green Finance Institute



# Executive Summary

Local authorities have a critical role in delivering the UK's transition to net zero by 2050. According to the UK Government's net zero Strategy, 82% of all UK greenhouse gas (GHG) emissions are within the scope of influence of local authorities, underscoring their importance in ending the UK's contribution to climate change.

The investment needed to finance this nationwide transformation, estimated at £1.4 trillion by the Climate Change Committee, will require the mobilisation of private capital alongside public finance. Crowding in private investment will necessitate developing the right commercial models and structuring bankable projects that will attract investors. However, the level of resources, technical know-how, and financial expertise required to structure complex projects involving multiple public and private stakeholders presents a particular challenge to most local authorities.

To achieve better outcomes, Government could simplify how it supports the development of net zero investment so that local authorities have a single gateway to understanding the public funding currently available to them and the policy and regulatory support that underpins local investment in energy and climate-smart infrastructure. Such a technical assistance platform could be seeded initially with public funds with the aim of becoming financially self-sustaining once fully operational. There is also an opportunity to simplify project development through greater standardisation, both technically and financially, to allow for easier due diligence by private capital sources.

The research underpinning this report has confirmed that technical and financial solutions will not be the same everywhere. The local authorities consulted understand the opportunities a portfolio approach to financing solutions brings, as local net zero investments are likely to be similar in nature, but will also be bespoke to local needs (both in terms of technology and finances). They are also open to the idea of blended financial intermediary structures. Successfully bringing these to market implies that, alongside project development capacity, financial advisory capacity needs to be developed. With sufficient funding, this could be provided by institutions such as the Green Finance Institute and others in the market – or as it develops out its offering, the UK Infrastructure Bank.

It is important to recall that private investors will only invest when they can see how they will be able to generate an acceptable return. They can provide much of the development capital needed, but only if there is sufficient market clarity to provide confidence that they can generate an appropriate return for the risks they are asked to take. Investment will need to be underpinned by first loss capital in some cases as well as revenue streams to repay that private sector investment – and where they do not exist or this cannot be achieved, will need to be underpinned by grant funding.

To support the effectiveness of these proposed solutions, immediate next steps should be undertaken to:

- 1** **Comprehensively survey local authorities across the country to determine their pipeline of green projects, the amount of capital required to deliver these projects, and the anticipated start date of construction (i.e., the point in time when capital investments will be required). This is a task that could potentially be undertaken by the National Infrastructure Commission.**
- 2** **Engage with institutional investors to determine their individual and collective risk appetites and calibrate those expectations with both financing gaps and financial solutions currently available in the market. This type of engagement with private capital providers is well-suited for a consortium of entities such as the UK Infrastructure Bank, the Local Government Association, and UK100, led by the Green Finance Institute.**

# 1

# Introduction



# 1

## Introduction

Local authorities have a critical role in delivering the UK's transition to net zero by 2050. According to the UK Government's net zero Strategy<sup>i</sup>, 82% of all UK GHG emissions are within the scope of influence of local authorities, underscoring their importance in ending the UK's contribution to climate change.

Local authorities have acknowledged their important role in this endeavour, with over 300 councils in the UK declaring a climate emergency since April 2019<sup>ii</sup>. Translating these climate ambitions into reality, via the successful financing of green projects and infrastructure, presents both a considerable challenge and investment opportunity.

During 2022 the Green Finance Institute (GFI) held several roundtables and interviews with local authorities and other key stakeholders to identify the challenges facing local net zero success. The findings from these interactions, as well as from desktop research completed by GFI, indicates that there are ongoing short- and medium-term challenges that local authorities are experiencing on their net zero journeys.

## The finance gap

The investment needed to finance the UK's nationwide transformation, estimated at £1.4 trillion by the Climate Change Committee<sup>iii</sup>, will require the mobilization of private capital (75%) alongside public finance (25%). Today, funding for local authorities' infrastructure investments is almost exclusively sourced from the Public Works Loan Board, which has a remaining funding capacity of £5 billion. The Public Works Loan Board is an attractive source of funding due to its ease of access. Capital is provided within 15 working days of completing the funding application. The application itself is easy to complete and does not seek detailed information on the projects under consideration – rather the approach is one of completing a very light-touch set of compliance questions<sup>1</sup>. While all of these attributes are positive for local authorities, this is not a long-term solution to financing local authorities' net zero ambitions since the Public Works Loan Board's available funds would only deliver ~1.4% of the total public investment required. The UK Infrastructure Bank and Community Municipal Investments/Local Climate Bonds can provide capital of £4 billion and, potentially, £3 billion (based on research from the University of Leeds<sup>iv</sup>), respectively, as well as the £1.2 billion estimated grant funding provided to local authorities in 2020-21. However, even these additional amounts of public funding are still only a fraction of the funding required to underpin the investment needed to reach net zero in the UK.

To close the investment gap there is a need to consider additional private finance sources – with a particular focus on long-term capital providers such as institutional investors. We term this **the finance gap**. A pre-requisite to achieving this 'crowding in' is deploying public funding in a different way from what has predominantly happened to date – that is, to use public capital to support project development and also de-risk investment opportunities rather than as traditional equity-type grants or debt financing.

## The financial advisory gap

Structuring innovative new public-private financial instruments financial instruments at this unprecedented scale will require the building out of new specialist financing expertise within local authorities. We term this **the financial advisory gap**. In the short term, ongoing funding from the Public Works Loan Board along with UK Infrastructure Bank and Community Municipal Investments/Local Climate Bonds can provide upfront capital for net zero-aligned investments, but moving into the medium term, financial advisory capability will be needed to develop **the financial structures that can unlock deeper pools of private sector capital**.

## The project development gap

The final and most urgent ongoing short-term gap revealed through interviews conducted by the Green Finance Institute with local authorities' sustainability and Section 151 finance officers across the UK is **the project development gap**. That is, the lack of technical assistance available to help turn concepts into investable projects with a well-developed and bankable business case, which is probably **the most pressing obstacle to their successful deployment of capital towards net zero** (see Box 1). This has been well documented previously. Analysis by UK100, a network of local government leaders who seek to devise and implement plans for the transition to net zero, found that, for every £100 billion of capital investment, an initial development funding of £5 billion is required. Government already recognises the need for support with a range of programmes currently in place, but much more is needed so this remains a significant gap<sup>vi</sup>.

<sup>1</sup> As part of the process, Local Authorities do need to confirm that PWLB funds will not be used to buy investment assets bought primarily for yield.

## BOX 1

### Most local authorities are facing a fundamental lack of resources to act

While over 300 local authorities have declared a climate emergency, climate action is often regarded as a less immediate priority than many other urgent activities that local authorities must deliver.

Achieving net zero goals at the local level is only one of their many responsibilities, which include housing, planning, leisure, waste collection, fire and rescue, policing, adult and children's social care, transport planning, highways, public health, conservation and promotion of scenic areas and local facilities (i.e., town and village centres). Competing priorities mean there is often a lack of resources and bandwidth to act.

Climate action also requires local authorities' internal departments to work together and make collective decisions for cohesive policy solutions and shared capital allocation plans, which can pose organisational challenges.

Key findings from a Local Government Association survey published in February 2020<sup>9</sup>, were that "The most frequently identified barrier to tackling climate change was funding (96 per cent), followed by legislation or regulation (93 per cent) and lack of workforce capacity (88 per cent)."

### Purpose of this report

This report primarily seeks to **help address the financial advisory gap - by setting out the broad range of finance approaches, products and providers local authorities can consider to raise capital** to support the implementation of their net zero ambitions. The list is non-exhaustive, but we hope it will help raise awareness among sustainability and Section 151 finance officers of the broader range of sources of capital and financial solutions that may be available to them and that they might consider replicating, where success has been demonstrated.

The report also provides examples of sources of grant funding to address the development finance gap. In the annex we discuss the practical steps needed to bring projects forward for financing. Finally, we then make some recommendations about how the market can develop further.



# 2

## Finance approaches, tools and providers



# 2

## Finance approaches, tools and providers

The local authorities GFI consulted in the process of this work have both the interest and appetite to take a portfolio approach to financing their green projects – and understand well that financing different types of projects requires a mixture of financing tools and finance providers.

Furthermore, they appreciate that, as local authorities, they are empowered with flexibility to make important funding decisions, particularly when it comes to climate change action. The UK Government's Guide to Developing the Project Business Case specifically encourages local decision-makers, particularly Section 151 finance officers, to:

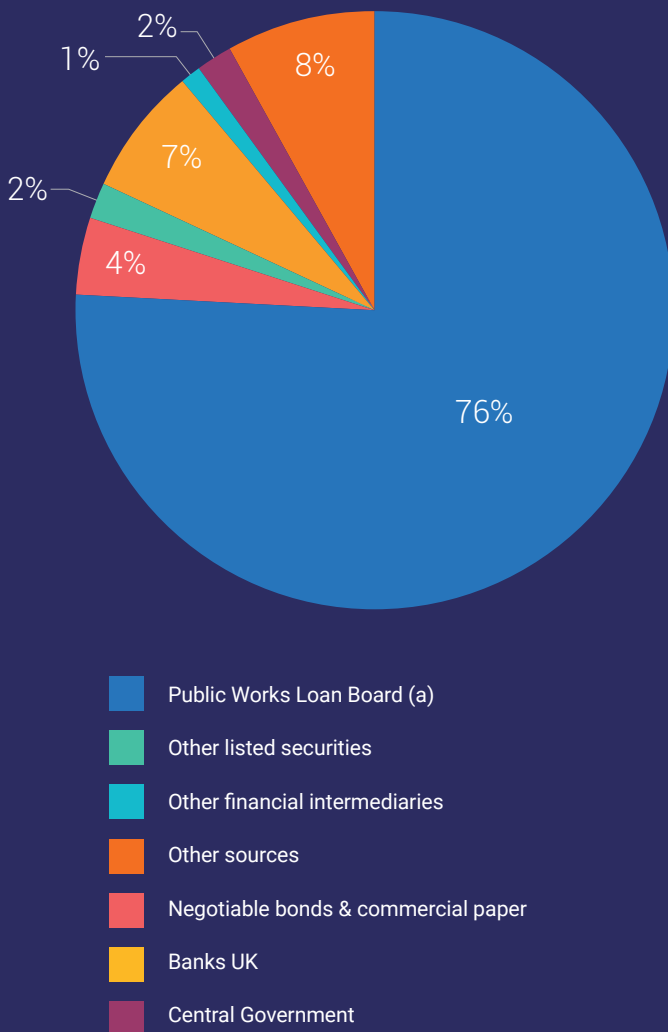
**Consider innovative sourcing of funding and financing streams ... in addition to traditional sources of capital and revenue.**

However, many Section 151 finance officers have yet to become fully versed with the full suite of financial products they can draw on to underpin such a portfolio approach. As a result, local authorities' current funding for infrastructure is almost exclusively sourced from the Public Works Loans Board, as shown by Figure 1.

This is problematic because the Public Works Loans Board's capacity to lend is quickly decreasing, meaning that local authorities are reliant on a source that may not exist in the near future. Additionally, this shows that local authorities are far from adopting a portfolio approach to funding green projects. Failing to match projects with suitable funding sources means that local authorities may not be effectively using their limited spending capacity.

Figure 1

Local government long-term borrowing sources end of Q4 2021



(a) All figures are as reported by local authorities so may differ from levels published by other sources. PWLB figure includes Northern Ireland authorities' borrowing at PWLB-equivalent rates from the Department of Finance and Personnel.

Source: Department for Levelling up, Housing & Communities, Quarterly Borrowing & Investment 3 (QB3).

This section sets out various top-level approaches as well as financial tools available to local authorities, giving a description as well as commentary on the advantages and limitations for each approach. Included are details of some of the different providers of these tools. Note that we use the terms 'financing' and 'funding' interchangeably to mean the mechanism for sourcing funds for investment.<sup>2</sup>

Local authorities conventionally view finance and funding separately. They typically respond more to funding opportunities rather than financing, which may limit capacity to develop a strategic approach<sup>vii</sup>.

<sup>2</sup> Financing and funding both refer to the mechanisms used by local authorities to source funds for investment, which could be grants, loans, bond issuances, etc.



## 2a Approaches to securing financing

### Balance sheet funding

Balance sheet funding is where the local authorities' own assets, cash flows and recognised gains and losses are used to fund projects. Other liabilities, such as debt, are taken into account when determining the amount of project funding that can be accessed through this route. Given that net zero investment will be just one of many competing priorities, the case for balance sheet-based investment needs to be clearly articulated in line with local interests and policy goals and disclosures<sup>viii</sup>.

#### Advantages of using own balance sheet

Local authorities with strong balance sheets can use their own resources to deliver net zero-aligned projects. This is because they are able to initiate and undertake projects with less exposure to financial risks (debt and financial market risk).

#### Limitations of using own balance sheet

The scale of funds needed for local authorities to reach their climate targets is far greater than the capacity of their balance sheets today – hence the need to make a strong case for action. If direct funding to local government continues to be reduced on the current trajectory, the opportunities to fund net zero-aligned projects through balance sheets will become progressively less viable over time, given the breadth of responsibilities that local authorities need to fund with dwindling resources.

Added to this, unless the return on investment (ROI) for projects is secure or highly certain, local authorities with significant debt exposure will have limited capacity and appetite to draw on their balance sheet. This effect will be exacerbated during periods with rising interest rates – or during periods of economic/financial uncertainty, such as those experienced during the pandemic lock downs.

### Partnerships

Public private partnerships (PPPs) can be described as any form of partnership – contractual, corporate or collaborative – between public and private sector organisations. Under PPP arrangements, the role played by public and private sector organisations can be flexible, based on meeting the requirements of specific projects and focused on best harnessing the skills, resources and preferences of the respective parties. They can be used to finance, build and operate projects.

PPPs have a mixed record. One of the most widely used PPPs in the UK was the Private Finance Initiative (PFI). According to a 2018 UK Parliament publication, it costs 2% to 3.75% more for public bodies to raise finance through PFIs than through conventional procurement<sup>x</sup>. In this same publication, HM Treasury stated that the success of PFI projects has been a 'mixed record' and that the reason for this is the rigidity and inflexibility of contracts and their associated long term costs. For example, Liverpool City Council has been paying around £4 million each year in PFI fees for Parklands High School and is contracted to pay a further £47 million until 2028, despite the school being empty since 2014. However, robust and well-coordinated PPPs present opportunities to bring together the resources, expertise, and powers available in ways that cannot be achieved by either sector in isolation. As such, local authorities are now exploring how this approach could be used to unlock a range of social, environmental, and economic benefits aligned to local and national priorities<sup>x</sup>.



**“Capacity to generate inward investment through bringing in capital but also project-related complementary skills and assets.”**

### **Advantages of Public Private Partnerships**

Local authorities with large project opportunities, such as land available for development or ownership of assets which are in need of regeneration to protect against long-term liabilities and deliver sustainable income, could benefit from PPPs. Under the right circumstances, PPPs provide local authorities that have funding or resource gaps with capacity to generate inward investment through bringing in capital but also project-related complementary skills and assets that can deliver a shared public-private vision.

PPP can enable local authorities to take control where the market has failed to deliver, site development has stalled or new infrastructure is required to unlock wider community benefits, urban and climate resilience. PPPs provide the opportunity for LAs to bring in commercial delivery expertise and funding as well as sharing of development risk between the parties. Finally, PPPs enable local authorities to benefit from potential value uplift - and take a longer-term view about land use, in particular where it may want to promote different types of development in the longer term to respond to local needs.

### **Limitations to Public Private Partnerships**

Local authorities with limited local assets, expertise and economic growth opportunities will be least likely to benefit from PPPs as PPP projects expose local authorities to long-term financial costs and risks. Risks may include: projects over running and subsequent community costs; changing markets which could cause budget and resource constraints; lack of aligned interests from local stakeholders; and delivery partner financial stability.

For these reasons PPPs are most often limited to large projects (infrastructure, development, regeneration etc), although there is no reason they cannot be used for net zero aligned initiatives under the right circumstances. The success of PPPs requires alignment of public and key stakeholders to support the partnership community interests and the ability to maintain that alignment through the duration of the partnership and subsequent outcomes.

PPP are also governed by burdensome policy, legal and institutional frameworks and are therefore limited to local authorities and private sector partners that have a shared mission and can effectively resource such initiatives.

## Blended public-private finance intermediaries

To help to increase available funds for local authorities, important stakeholders in the local climate finance dialogue are currently exploring pooled and blended finance intermediation structures or facilities. These facilities most commonly take the form of special purpose vehicles (a subsidiary created by a parent company to isolate financial risk) or permanent institutions. In late 2021, the Green Finance Institute convened a group of some of the UK's largest financial institutions to explore their perceptions of the viability and attractiveness of a place-based green finance facility. Participants in that roundtable indicated a strong appetite for such a facility, on the condition that there was 'adequate' risk-sharing between the public sector and private capital providers as well as a sufficiently robust and predictable pipeline of projects, aggregating to a size that would be large enough to list on a financial exchange of tradable instruments. Further, institutional investors expressed comfort with the idea of longer-dated debt that allowed a more reasonable match between financing options and the anticipated useful life of climate-smart urban investments, recognising that a longer tenor allows local authorities the opportunity to more comfortably meet their debt service obligations without undue strain on their budgets. These findings align with international examples (see Figure 2 for a snapshot of some financial instruments).

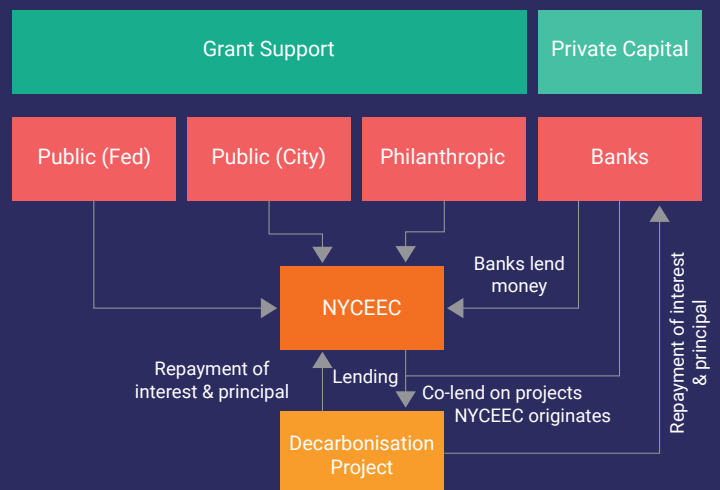
## Figure 2

### International examples of blended finance intermediaries

Blended financing facilities for sub-national entities seeking to raise capital from institutional investors through intermediaries have had a mixed record. In the United States, the Connecticut Green Bank<sup>xi</sup> – at the state level – and the Washington DC Green Bank<sup>xii</sup> – at the city level – have both been able to raise hundreds of millions of dollars for green projects. A similar product, led by a private financial intermediary in South Africa, was responsible for raising tens of millions of pounds (in local currency) for sub-national infrastructure investments<sup>xiii</sup>. However, attempts to introduce pooled instruments in other countries (for example, in Kenya) were not as successful and, despite strong interest from prospective borrowers for a pool, the intermediary – the Kenya Pooled Water Fund<sup>xiv</sup> – was ultimately unable to reach its capitalisation target.

The below diagram, which shows the flow of funds that capitalise the New York City Energy Efficiency Corporation, demonstrates the use of a blend of public and private capital at scale to deliver market-based solutions for green projects since 2011<sup>xv</sup>.

### Fund Flow



As described in case study 5 later, the Greater London Authority (GLA), advised by GFI, is committing £4m of a £90m green bond offering to develop high-impact green investment opportunities for the public and private sector. An initiative being led by the UK Core Cities Climate Investment Commission, is also exploring the feasibility of a blended finance approach. More details on both initiatives will be announced later in 2022.

For these structures to be successful, governance structures must be carefully designed to ensure an alignment of interests between the public and private sector – meeting needs around both the delivery of policy goals and required returns on investment for private sector investors. A schematic for how this type of intermediary could operate, based on international best practices, is shown in Figure 3. Also key to success is a project pipeline to invest in.

### Advantages of pooled and blended fund structures

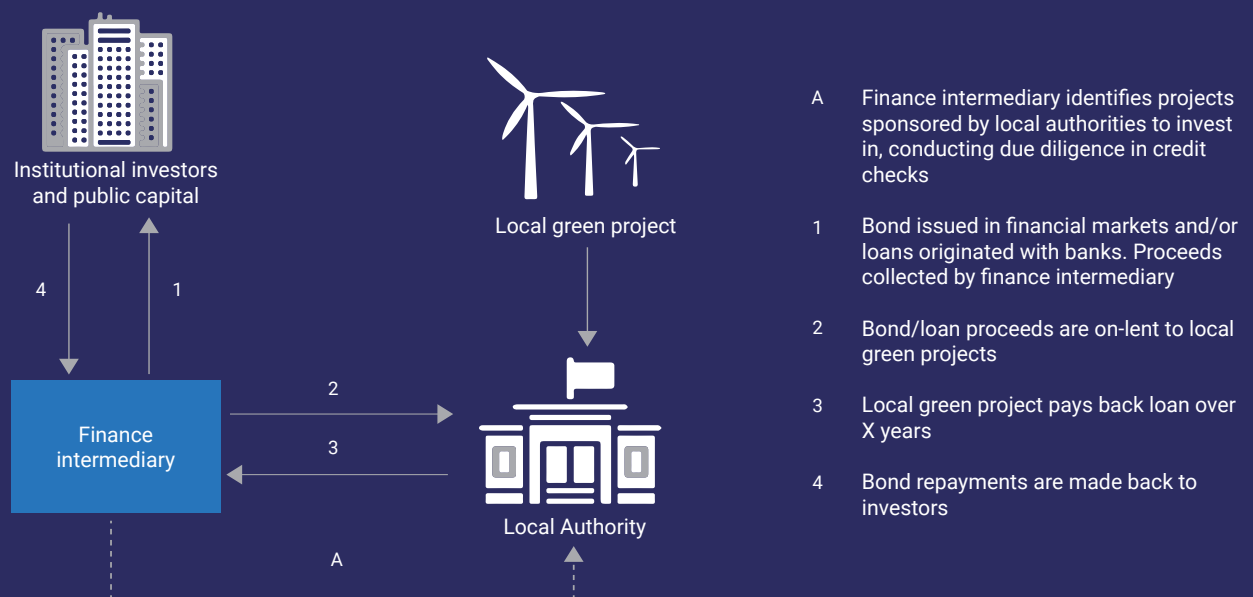
This type of fund structure approach can allow local authorities to aggregate their project funding to a scale that could prove attractive for long-term institutional investors – central to addressing the gap between the publicly-sourced capital available to deploy to projects now and the Committee on Climate Change’s estimated aggregate investment need of £1.4tr by 2050. It could be particularly helpful for aggregating smaller projects such as initiatives around retrofitting and energy efficiency for which individual investments are relatively small (in the thousands) but the sum total is significant (in the £100s of billions).

### Limitations of pooled and blended fund structures

The success of this approach hinges on a number of key factors, not least the cost-effectiveness of borrowing through this route – which will need to be determined on a case-by-case basis. Also key to success is having a pipeline of investible projects (i.e., those that have completed both technical and financial feasibility assessments and are ready for investment in tandem with the anticipated launch). Engagement with the private sector to date has indicated developing a robust and scaled pipeline of bankable projects will be key to securing private sector investment into such

Figure 3

#### Potential Structure of a blended finance facility/intermediary



## 2b

## Financial instruments and their sources

### Loans

Loans are the most popular tools for local authorities to consider in relation to securing finance for net zero-aligned projects. As noted earlier, loans from the Public Works Loan Board account for more than 75% of long-term borrowing by local authorities. When considering taking out a loan there are several factors to consider: the source (public or private); the period of time over which the loan is repaid (often called tenor or term); and the interest rate. There are three interest rate mechanisms for loans that a local authority can access: interest-free loans, fixed-rate loans, and floating-rate loans. Fixed-rate loans are the most popular type. Interest-free loans are largely limited in their availability/capacity and floating-rate loans do not provide the certainty to allow local authorities to plan finance costs, particularly in a rising interest rate environment. Fixed-rate and floating-rate loans can both be provided by the public and private sector.

Interest-free loans tend to be sector specific and limited in their availability. For example, Salix Finance, a non-departmental public body owned wholly by the government, is currently offering interest-free loans for energy efficiency improvements and recycling projects in Scotland and Wales. There are currently no similar interest-free loans available in England.



**“There are three interest rate mechanisms for loans that a local authority can access: interest-free loans, fixed-rate loans, and floating-rate loans.”**



## Advantages of Loans

Given local authorities' constrained budgets, loans can be an effective way to access additional funding to support the delivery of local net zero-aligned projects. As noted earlier, the Public Works Loan Board is the most popular source of loans for local authorities. It offers highly competitive rates on loans lasting up to 50 years and has been praised for its simplicity, providing certainty to local authorities that low-cost finance is available to them. Such low cost, long-term financing is essential to infrastructure projects as they often take many years to construct before they are operationalised and generate returns. Commercial bank lending is typically more expensive than the Public Works Loan Board. Despite this, it is still a relatively accessible source of funding because loan application processes tend to be simple and disbursement is quick.

## Limitations of loans

Local authorities are unable to borrow to finance day-to-day spending but can raise funds through loans for green initiatives that will provide a clear return on investment. Local authority loan capacity for green projects will therefore be dependent on:

- **Revenue capacity for each local authority;**
- **Cost of meeting ongoing loan requirements (measurement, verification and auditing); and**
- **Viability of the project and its commercial outcomes.**

The availability of long-term, cheap loans is insufficient given the scale of the net zero challenge. As noted earlier the Public Works Loan Board has a current capacity of £95bn, which was increased from £85bn in 2019. At the end of 2021, total borrowing from Public Works Loan Board had exceeded £90bn (94.7% capacity). The introduction of the UK Infrastructure Bank local authority lending facility provides an additional £4bn in funding. However, these quantities combined are only a fraction of the investment required to reach net zero.

## Provider 1: Public Works Loan Board

The Public Works Loan Board is a non-discretionary lender: it does not ask the purpose of a loan. It offers loans at a very competitive rate of gilts +80bps. The lending facility is operated by the UK Debt Management Office (DMO) on behalf of HM Treasury. Loans are provided to local authorities, and other specified bodies, from the National Loans Fund, operating within a policy framework set by HM Treasury.

Local authorities are free to finance capital projects by borrowing in this way, provided the Section 151 finance officer is satisfied that they are acting in line with statute and can afford to repay the loan. In deciding how much debt is affordable, authorities are required by law to "have regard" to the Prudential Code, published by the Chartered Institute of Public Finance and Accountancy (CIPFA), but have discretion to decide how to fulfil this statutory requirement.

There are additional approvals required for 'minor' local authorities<sup>xvi</sup>.

Revised lending terms were published on 26 November 2020. A key change introduced requires local authorities to demonstrate that their borrowing supports service delivery, housing, regeneration or preventative action. The application process is deliberately 'permissive', but requires submission of a three year capital plan and the Section 151 finance officer must sign off that borrowing does not include projects primarily undertaken to generate income.

## Case Study 1

Applications for Public Works Loan Board loans must be made by completing a short document<sup>xvii</sup> and sending it to the DMO by email only. The main two types of loans available to local authorities are:

- **Fixed rate loans, on which the rate of interest is fixed for the life of the loan and interest is payable at half-yearly intervals;**
- **Variable rate loans, on which the rate of interest is variable at one, three or six monthly intervals. The interval is at the choice of the borrower but once chosen remains the same for the life of the loan.**

### Notable characteristics and considerations

The Public Works Loan Board typically offers one of the lowest rates of interest available to local authorities and provides loans on a more flexible basis than most private sector funding. Borrowing is secured on the revenues of the local authority rather than specific project revenues, assets or collateral. Lending from the Public Works Loan Board is not subject to a minimum lending amount.

### Warrington Borough Council

Warrington Borough Council acquired two solar farms to sell power generated back to themselves and benefit from price certainty on their wholesale electricity costs.

The first consists of a 34.7MWp solar farm plus a 27MW battery storage facility. The project is located near York and completed construction in December 2019 by the Council's contractor Gridserve. The second, a 25.7MWp solar farm in Hull was completed in spring 2020 (also by Gridserve). Both projects were developed subsidy free with electricity from the York solar farm being sold on the open market while the Hull site supplies all the Council's own energy needs.

The Council has put a contract in place with Gridserve to build, operate and maintain both projects over their lifetimes. The Council funded this through the Public Works Loan Board, with loan payments being supported by a Power Purchase Agreement, where the Council signed a long-term agreement to buy the electricity generated by the Hull solar farm to power its own operations. This secured a revenue stream for the project to get financed, without the need for a Government subsidy, and guarantees zero carbon electricity is being used by the Council<sup>xviii</sup>.

## Provider 2: UK Infrastructure Bank

The UK Infrastructure Bank is the new, government-owned policy bank, focused on increasing infrastructure investment across the United Kingdom. The bank is wholly owned and backed by HM Treasury and operates on an independent basis. The bank works in partnership with the private sector and local government, and financing is focused on two policy objectives:

- **supporting decarbonisation (to meet net zero by 2050); and**
- **supporting local and regional growth.**

As noted earlier, the UK Infrastructure Bank is providing £22bn of infrastructure finance to tackle climate change and support regional and local economic growth across the United Kingdom.

For local authorities, the bank says: “We offer financing to local and mayoral authorities across the UK, for high-value and complex economic infrastructure projects.” From summer 2022, the UK Infrastructure Bank will offer loans to local authorities for high value and strategic projects of at least £5 million. The Bank will also develop an advisory service for local authorities and other project sponsors to support project development. The Chancellor’s recent letter to the UK Infrastructure Bank, in which he states ‘**prioritise opportunities that align with the government’s renewed focus on energy security**’, indicates the UKIB will focus on sectors like household energy efficiency and retrofit measures<sup>xix</sup>.

### Notable characteristics and considerations

Loans to local authorities (for projects >£5 million) will be made at rates as low as gilts +60bps, which is 20bps lower than the Public Works Loan Board. The maximum tenor of these loans is 50 years, although there is no indication yet as to what the typical term will be.

### Green bus routes (West Midlands Combined Authority)

West Midlands Combined Authority (WMCA) has announced plans for a phase 1 new Sprint Bus Route in Birmingham along the heavily congested A45 corridor. The project will increase connectivity between residential and employment areas, speed up journey times and reduce carbon emissions, allowing WMCA to create a zero-emissions travel corridor by 2030. This was enabled through the UK Infrastructure Bank.

Once completed, the project is estimated to unlock nearly 4,000 jobs due to the increased frequency and speed of connections between the economic hubs of Birmingham City Centre, Solihull and Birmingham airport. Journey times along the route will be significantly faster and more reliable, with peak services running at least every 10 minutes.

The project will also help reduce CO<sub>2</sub> emissions by decreasing route congestion and bringing online new hydrogen buses. Greener transport is a key part of the government’s Net Zero Strategy, and bus network expansion across the UK is a priority set out in its Levelling Up White Paper.

The first phase of the project will cost the council £10 million, which UK Infrastructure Bank provided through a loan to WMCA as part of the Bank’s local lending function. In addition, WMCA announced in early 2022 that it will be receiving £30 million through the Zero Emission Buses Regional Area (ZEBRA) scheme, which will fund 124 hydrogen-fuelled buses<sup>xx</sup>.

## Provider 3: Commercial and retail banks

Commercial and retail banks are a further source of loans – and are actively seeking green finance opportunities. The ability to renegotiate terms of loans may offer useful levels of flexibility compared with other, often cheaper, sources of finance such as Public Works Loan Board or even bonds (discussed later). In addition to providing finance directly to local authorities, commercial and retail banks have an important role in providing finance to residents to support climate change action, for example, green mortgages for the able to pay, which ensures local authority resources are targeted efficiently to the less able to pay.

### Notable characteristics and considerations

Terms of loans need to be suitable both for local authority and project needs. In the past, local authorities found themselves in considerable difficulty when interest rates rose. For example, in the past local authorities were enticed into Lender Option Borrower Option (LOBO) contracts at a time when banks could offer lower fixed rates than the Public Works Loan Board<sup>xxi</sup>. However, these loans turned very controversial as they were mis-sold by being presented as fixed-rate loans while being variable rate loans. As a result, local authorities were locked into paying interest rates as high as 7% and struggled to exit these agreements due to high breakout costs<sup>xxii</sup>.

### Green Investment Group

In 2012 the UK Green Investment Bank plc was launched by the Government. It was one of the first institutions of its type in the world – a publicly funded bank designed to mobilise private finance into the green energy sector. Between 2012 and 2017, the Green Investment Bank helped to finance more than £12bn of UK green infrastructure projects. In 2017, Macquarie acquired Green Investment Bank from the UK Government and combined with Macquarie Capital's renewables team to create one of the world's largest teams of specialist green infrastructure developers and investors, the Green Investment Group.

Green Investment Group's mission is to accelerate the green transition and primarily supports energy efficiency, waste and bioenergy, offshore wind and onshore wind projects. The Green Investment Bank's mission has been carried on by the Green Investment Group and it uses innovative financial products to deploy clean energy technologies. For example its Green Loan programme is designed to enable local authorities to increase installation of LED street lighting technology and help councils reduce their energy bills. The loan finances capital expenditure for LEDs and central management systems for smart LED systems. It offers local authorities a low fixed-rate financial arrangement over a period of up to 20 years with an innovative loan repayment option in which repayments are scheduled in such a way that debt service is tailored to the strength and pattern of the cash flow that the project generates.

The 2020 Progress Report highlights that Green Investment Group has provided climate financial advisory services to local government organisations including Hertfordshire County Council<sup>xxiii</sup>.

## Case Study 4

### The Isle of Man Government renews and extends a credit facility agreement with HSBC

HSBC has provided the Isle of Man Government with a credit facility amounting to £155m, which incorporates a £30m term loan and a £125m revolving credit facility that has been increased from the original £100m facility. The arrangement has seen more than 150 local projects, including energy efficient street lighting, energy efficient social housing projects and improvements to existing facilities in the island<sup>xxiv</sup>.



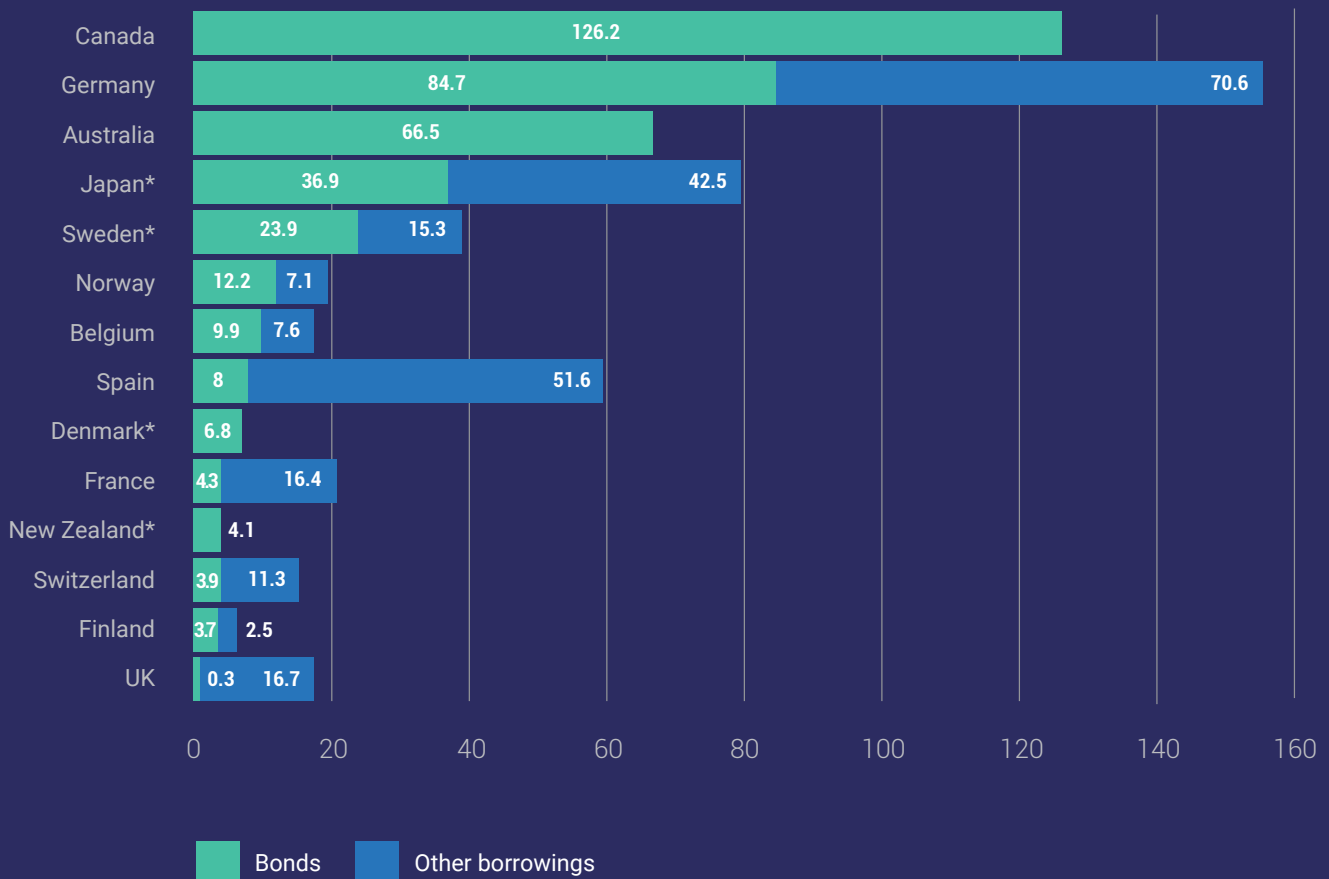
## Bonds, including municipal bonds and green bonds

A bond is a fixed-income or floating-rate (in a few instances for local authorities) instrument that represents a loan made by an investor to a borrower. Bonds are different from loans as they are a tradeable fixed-rate instrument, whereas loans are non-tradeable fixed or variable-rate instruments.

UK local authorities have the power to issue bonds - they offer an additional mechanism, beyond loans, to raise long-term debt. Bonds are typically used to raise funds for projects and operations. Some local authorities have obtained credit agency ratings, to enable borrowing on the capital markets. Around the world, municipalities typically issue general-obligation bonds, although the UK significantly lags behind its peers (see Figure 4). Green bonds, a specialist type of bond designed to raise funds specifically for climate and environmental projects, are also a possibility. Each is described below.

Figure 4

Sources of debt for local governments<sup>xxv</sup>



## Municipal General Obligation Bond

A municipal general obligation bond (GO bond) is a type of municipal bond that is backed entirely by the local authority's creditworthiness and its ability to leverage taxes on its residents and businesses. Unlike revenue bonds, GO bonds are not backed by collateral and do not pay creditors back on the basis of income generated from funded projects but instead from the general finances of the local authority. As an example, a local authority may choose to raise funds for a wide portfolio of projects from institutional investors through a bond issuance, but might recognise that the full list of projects fail to generate revenue in line with its debt service obligations (i.e., a tree-planting initiative that is unlikely to generate short-term returns).

### Advantages of GO bonds

The longer financing term of municipal bonds - three to 10 years - can help local authorities with medium to long-term financial planning and to fund large long-term projects. The most important feature of GO bonds though, is their ability to attract funding from long-term-focused institutional investors; without GO bonds, local authorities would face significant challenges in sourcing capital from these kinds of investors, which include pension funds and insurance companies. This is due largely to the fact that institutional investors typically do not directly lend to local authorities for individual projects but instead rely on capital markets transactions, like the issuance of GO bonds, as the preferred investment mechanism.

### Limitations of GO bonds

The cost, time and fees involved with GO bonds relative to the cost and flexibility offered by other funding sources mean their use tends to be limited currently. Individual local authorities with a high-risk profile (due to poor credit history or lack a stable future income), and which have limited capacity to meet repayments, are likely to find it difficult to issue GO bonds, as institutional investors will perceive these as being too risky to invest in.

Authorities wishing to issue a GO bond, as well as being considered creditworthy will need to have a large enough borrowing requirement (typically above £250m) to both justify the overhead costs and administration involved and appeal to institutional investors. Accordingly, these bonds are generally limited by the local authorities' fiscal borrowing caps.

## Provider: UK Municipal Bond Agency

The UK Municipal Bonds Agency (UKMBA) exists to reduce councils' capital costs by raising money through the capital markets and on-lending the proceeds to local authorities. See Figure 5 for more details of the structure. The Local Government Association established the UKMBA in 2014 to diversify the funding sources available to local authorities, reduce reliance on the Public Works Loan Board and enable investors to more easily fund UK local authority infrastructure investment. Its mission is to facilitate lending to eligible entities, including for smaller local authorities, at a rate lower than Public Works Loan Board borrowing – or than if local authorities were to issue their own bonds.

The Agency's maiden issuance in March 2020 was a £350m 5-year fixed-rate note for Lancashire County Council to refinance a portion of their current short-term debt. This was followed by a £250m issuance for Lancashire County Council in August 2020 at a rate of 1.625% (122bps below the Public Works Loan Board rate). This loan will be used to refinance short-term debt and for other general purposes. UKMBA has not issued any other loans since 2020 due to the impact of COVID-19 and so it remains a largely untested approach – albeit one with the potential to be scalable<sup>xxvi</sup>.

**“Its mission is to facilitate lending to eligible entities, including for smaller local authorities.”**

Figure 5

UK Municipal Bond Agency Structure

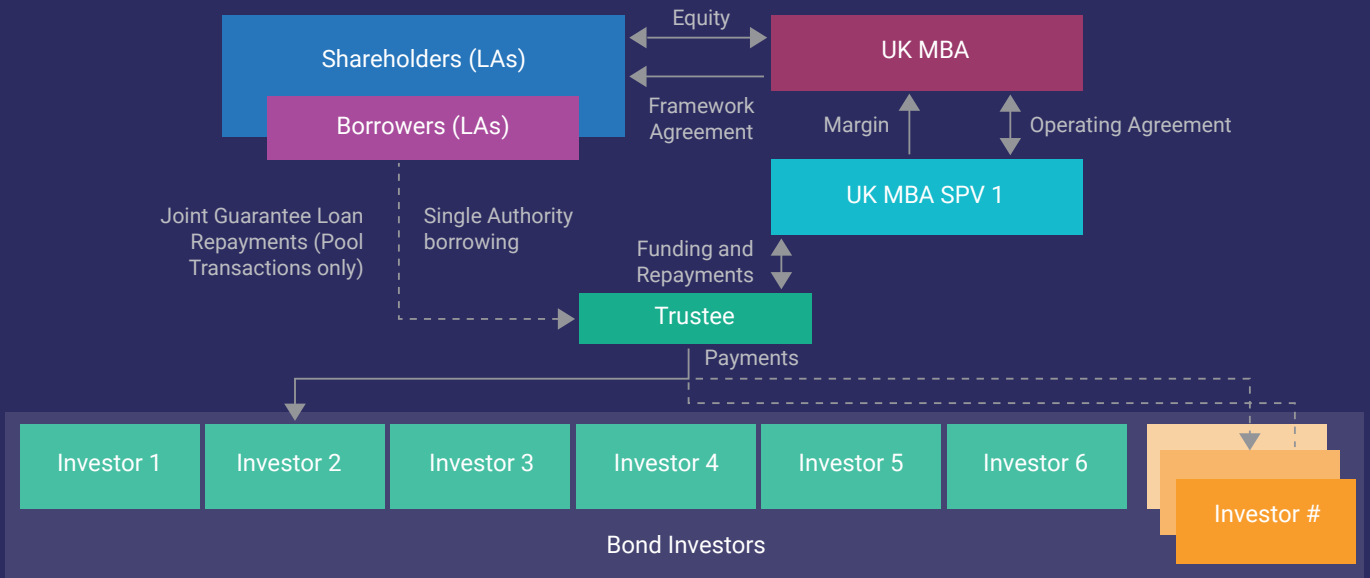
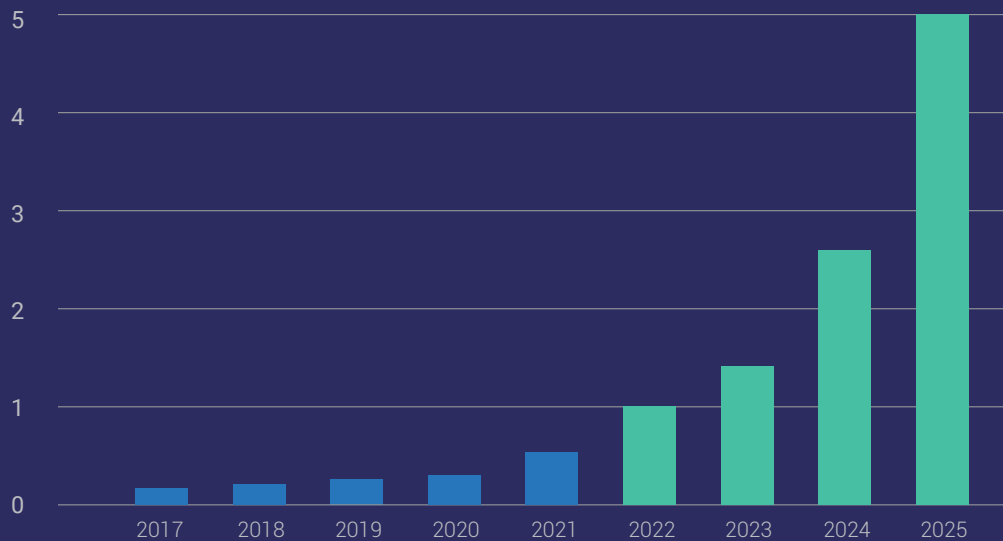


Figure 6

Global Green Bond Issuance (USD Trillion)





## Green Bonds

A green bond is a fixed-income instrument designed to raise funds for ring-fenced climate and environmental projects. These bonds are usually linked to assets and backed by the issuer's balance sheet, so they carry the same credit rating as their issuer's other debt obligations.

Green bonds are not regulated but tend to be subject to internationally recognised Green Bond Principles and Climate Bonds Initiative standards, which define the approach to issuance and also set rules around use of proceeds.

Green bonds are currently experiencing a 'greenium', meaning that issuers are able to obtain a cheaper cost of funding by issuing debt with a specified use of proceeds that have positive environmental or social impacts. In H1 2021, yield curves were available for 36 green bonds and 80% of these priced on or inside their yield curve<sup>xxvii</sup>. In simple terms, this means that 80% of the 36 green bonds achieved cheaper funding for the issuer compared to non-green (vanilla) bonds.

The global green bond market has experienced near exponential growth (see Figure 6). The London Stock Exchange has issued more than 300 green, sustainable and social bonds, raising over £70bn since 2012. Since launching in September 2021, the government's green financing programme has raised more than £16 billion from the sale of green bonds and NS&I's Green Savings Bonds. Funds support projects with clearly defined environmental benefits, as set out by the UK Government Green Financing Framework<sup>xxviii</sup>.

Demand from investors is high for green bonds. The UK's first sovereign bond (£10bn) was x10 oversubscribed<sup>xxix</sup>; its second (£6bn) was x12 oversubscribed. This demand highlights the potential that green bonds could have for helping local authorities raise the funds required to reach net zero.

Green bonds for local authorities are relatively new in the UK, with limited examples. In 2015, Transport for London (TfL), owned by the Greater London Authority, issued a £400 million green bond with an interest rate of 2.125%<sup>xx</sup>. More recently, the Greater London Authority has announced plans to launch a green bond early in 2023.<sup>xxxi</sup>

Some of the UK's largest local authorities could benefit from issuing green bonds to increase financing capacity, particularly those who have declared a climate emergency, have well-developed environmental plans to address this and a pipeline of budgeted projects. However, it is important to ensure that these green bond issuances likewise align with a strong demonstration of need for financial mobilisation at a scale that meets the expectations of the financial markets. Institutional investors will be unlikely to invest in transactions that fail to meet a minimum threshold similar to those described above.

## Case Study 5

### Greater London Authority Green Bond Issuance

In February 2022, the Mayor of London outlined proposals to secure more than £500 million for investing in climate action by issuing a green bond, raising funds for new and existing projects which deliver environmental benefits, and a more sustainable economy.

In a statement issued by the GLA, the authority said that the plans would accelerate London's push to net zero by helping to tackle rising energy bills and the climate emergency. The Mayor is committing £90 million of GLA funds to support the ambition, with £4 million to develop high-impact green investment opportunities for the public and private sector; and £86 million to support a substantial GLA Green Bond programme, financing direct decarbonisation investment by the GLA Group and its strategic partners as part of the Mayor's Green Financing Facility.

The GLA said the investment will support projects making social housing and public buildings energy efficient, as well as clean, local energy projects providing solar PV, heat pumps and district heating across London. The hope is that the £90 million in funding will help unlock over £500 million to finance such low-carbon projects.

The Mayor's proposals are estimated to support more than one million tonnes of carbon savings over the lifetime of the projects and lower energy use by 328,638 MWh a year, the equivalent to the energy used by nearly 85,000 homes in a year, while supporting jobs in London.

## Advantages of green bonds

Green bonds offer another route for local authorities to access longer term low-cost institutional investor capital. Green bonds are particularly suitable for financing long-term projects that generate regular revenue, which can be attractive to institutional investors, who are otherwise constrained in finding ways to invest into local authorities. Local authorities stand to make notable savings on their borrowing in the current environment where green bonds are experiencing a 'greenium'. The green bond market globally is growing as an increasing number of governments and private investors are making use of this mechanism to raise funds. In 2021, global green bond issuance reached \$517.4 billion, which was up 50% from the previous year (see figure 10)<sup>xxxii</sup>.

## Limitations to green bonds

As with GO Bonds, smaller local authorities will find green bond issuance challenging due to the high fees associated with bond issuance, which can be a barrier to entry. Green bonds, like other types of bond instruments, are also generally limited to the local authorities' fiscal borrowing caps.

**“Green bonds are particularly suitable for financing long-term projects that generate regular revenue.”**

## Community Municipal Investments / Local Climate Bonds<sup>3</sup>

A Community Municipal Investment (CMI) – sometimes known as a Local Climate Bond – is a regulated investment product launched by local authorities to access cost-effective funding for specific decarbonisation projects. It offers local residents the opportunity to invest in their local area, through a crowdfunding platform, from as little as £5.

Since 2020, Warrington Borough Council, West Berkshire Council, The London Borough of Islington, The London Borough of Camden, Cotswold District Council, and Telford and Wrekin Council have launched CMIs for £1m. Abundance investment, a regulated B-Corp and the only firm to currently offer CMIs in the UK, worked with local authorities to issue these CMIs on their platform.

In West Berkshire, the funds have gone towards installing rooftop solar power at several council-owned sites and meeting its commitment to make the district carbon neutral by 2030, such as through investments in urban tree planting and nature conservation projects<sup>xxxiii</sup>. Other uses of funds raised through CMIs include electric vehicle charging points, improvements in air quality and zero carbon recycling and waste collection (in Islington<sup>xxxiv</sup>) and a solar farm and battery storage facility (in Warrington<sup>xxxv</sup>).

The instrument represents an opportunity to tap into a new source of capital – residents' savings. Based on public data from HMRC and on ISAs, it is estimated that on average for every 100,000 people in the UK there is £4bn of cash and capital held<sup>xxxvii</sup>. But this money tends to flow out of local communities. CMIs allow it to be invested locally, furthering community wealth building and helping bridge the funding gap for councils.

CMIs can be issued as regulated bonds or as regulated peer to peer loans. Peer to peer loans give the opportunity for the investment to be held in an Innovative Finance ISA (IFISA), which allows residents to access ISA tax benefits. The Islington issuance was the first CMI to be ISA-eligible. Being ISA eligible will allow more people to invest in the instruments, enabling CMIs to tap into the £620 billion of capital held within ISAs in the UK<sup>xxxviii</sup>.

The Green Finance Institute, in partnership with Abundance, UK100, Local Partnerships and InnovateUK, launched the Local Climate Bond Campaign in 2021, to raise awareness and support councils in the issuance of CMIs. As part of this Campaign, and following the issuance of the first CMIs on the Abundance platform by West Berkshire and Warrington, a group of seven Councils signed the Local Climate Bond Pledge in 2021, committing to issue a CMI in the 18 months following COP26<sup>xxxviii</sup>.

<sup>3</sup> Although grouped in the category of bonds, Local Climate Bonds do not conform to a traditional definition of bonds as understood by the capital markets; they are largely illiquid with limited trading after initial placement, and typically are more appropriate for individuals on a retail basis than institutional investors on a larger or wholesale basis.

## Advantages of Community Municipal Investments

Most local authorities can benefit from CMIs, as they are a simple, proven and economical way to finance local net zero solutions, which diversifies their sources of funding, and at a cheaper rate than the Public Works Loan Board. They are also a novel way to engage constituents in plans for decarbonisation and projects identified in their environment strategies, encouraging wider engagement and collective action.

The main advantages of CMIs are that they provide a local authority with deeper engagement with residents on their net zero plans, giving citizens the opportunity to make a positive contribution towards a carbon neutral future for their local area, while also providing them with a financial return. CMIs are designed to price below the prevailing Public Works Loan Board rate at the time of issuance; based on the issuance listed above, CMIs have been, on average, 40bps cheaper to date. CMIs also provide a facility to enable investors to donate their interest payments back to the Council. 16% and 11% of the West Berkshire and Warrington investors respectively chose to donate part or all of their interest payments back to the Council.<sup>4 xxxix</sup> Such regulated instruments are secured against the ability of the local authority to pay the returns, and therefore present a very low risk investment for investors, as they take local government risk, not project risk. Finally, the ISA eligibility of recent CMIs means investors do not pay tax on the returns, increasing their attractiveness as an investment.

## Limitations of Community Municipal Investments

CMIs are a new, innovative instrument for local authorities. Therefore education is required to ensure the limited risks, and the benefits, are truly understood. Other constraints are linked to general local authority limitations when it comes to climate finance. Generally, there is limited capacity in local authorities to focus on new financing mechanisms, which can be solved through improved training and support. ISA eligibility is currently only applicable to 5-year loan instruments (as in the Islington and Camden instruments). However, loans are not covered by the Financial Services Compensation Scheme (FSCS) investment lifeboat. As in the case of all climate investments, there are risks of greenwashing accusations. Work is ongoing under the UK Government Green Financing Framework to establish a common standard that aligns with wider UK climate goals. CMIs are also expected to align to the UK Green Taxonomy in due course.

<sup>4</sup> Donations can be particularly helpful for Councils as they provide a mechanism to fund projects in their capital programme with no returns profile, as they do not need to generate a return to repay this donated funding source. On average, the donation rates achieved so far reduce overall cost of capital by a further 10bps.

## Community Municipal Investment (West Berkshire Council)

West Berkshire Council issued a CMI in partnership with the online crowdfunding platform Abundance Investment, that raised £1 million to install new rooftop solar panels on council-owned buildings and fund other initiatives to deliver its ambitious target of making the district carbon neutral by 2030.

Individuals both in and outside of West Berkshire were able to invest as little as £5 to support specific projects that align with the Council's declaration of a climate emergency.

The investment offered returns of 1.2 per cent per year over a 5-year term, with capital returned in instalments across the investment term. Interest and capital repayments can be withdrawn or reinvested into new investments. Investors can look to sell their investment if an exit is required before the full-term length. The CMI successfully closed reaching its £1m target five days ahead of the proposed deadline. The CMI attracted 640 investors who each invested an average of around £1,500. Just over a fifth of investors were West Berkshire residents<sup>xi</sup>.

# 3

## Grant-based instruments to support project development



# 3

## Grant-based instruments to support project development

As noted in the previous section, having an investable pipeline of projects is key for securing private sector investment.

However, many of the UK's local authorities lack the development capacity to support local energy investment and deliver the net zero transition, despite being keen to do so. Analysis by UK100 has identified that £5bn in development finance is likely to be needed for every £100bn in investment delivered by local authorities.

As part of this study, the Green Finance Institute requested project management documents from 12 local authorities, which were to be passed on for independent assessment by our engineering consultant Arup. From the sample of six local authorities that expressed interest in receiving this independent assessment, only one was able to provide detailed engineering specifications for its projects. This highlights the scale of the project development technical assistance challenge ahead, a problem that central government is currently considering and working to resolve.

The following section sets out some of the sources of grant-based funding available to local authorities for project development. The Annex explores the project development process as a means to set out what these project development funds are used for.

**“£5bn in development finance is likely to be needed for every £100bn in investment delivered by local authorities.”**



## Natural Environment Funds

An Environment Fund is a specific type of thematic fund focused on achieving environmental goals. Environment funds managed by local or regional authorities are typically structured to aggregate skills, connections, and access to funding sources under one umbrella body. This can include non-profit, charitable and commercial organisations that are aligned with the strategic environmental goals of an authority. It can also include companies operating in alternative energy, water purification, waste management, energy efficiency, carbon emissions, or forestry.

In recent years, Environment Funds in the UK have been underpinned by DEFRA's Natural Environment Investment Readiness Fund (NEIRF).<sup>xii</sup> This fund of up to £10 million is continuing to provide grants of up to £100,000 to environmental groups, local authorities, businesses and other organisations to help them develop nature projects in England to a point where they can attract private investment. The Fund is in the process of selecting a new round of eligible applicants, for announcement in mid-2022, and learnings from the successful applicants that include local government bodies are shared through a Community of Practice. The Fund was designed by DEFRA and Environment Agency, working with HMT, Natural England and the Access Foundation for Social Investment. On behalf of Defra and the Environment agency, the Green Finance Institute led a series of educational workshops on the fund and has supported during the application and awards process, performing comprehensive reviews of the financial viability and sustainability of proposals for NEIRF funding.

The Scottish Government is considering launching a similar fund for Scotland, and other government agencies and foundations are offering smaller amounts of grants to support nature-related projects in reaching private investment that may provide an opportunity for local government.

## Advantages of Natural Environment Funds

Local authorities with degraded natural resources or areas in need of resilience against climate incidences could benefit from aggregate payments including from biodiversity net gain, carbon offsetting and landfill tax funding. With various pools of revenue being created to finance environmental improvements, environment funds can create a vehicle to capitalise on those opportunities. Also, the public finance element explicitly provides funding to develop project pipelines, meaning that projects should become bankable.

Local authorities which have wider natural environment programmes could benefit from reduced administration, monitoring costs and overheads by combining programmes and funding streams. Environment Funds can also benefit local authorities seeking to collaborate with other bodies (water utilities, canal river trusts, Natural England and others) to scale projects and create joined-up programmes rather than isolated pockets of activity.

## Limitations of Natural Environment Funds

Environment funds are limited to supporting nature-based projects such as sustainable urban drainage systems (SUDs), tree planting, peatland restoration and habitat creation. The scope is wide but will only be applicable to local authorities with natural assets or areas that could be restored to become nature positive. In order to attract funds that are seeking a financial return in addition to an environmental and social impact, projects need to be able to generate revenues.

## Box 2

### NEIRF Proposals from Local Councils (2021)

**Crystal Clear Clyst Bond:** East Devon District Council received £100,000 to assist on a project seeking to convert farmland to woodland in an area experiencing a growth in development, via an Environmental Impact Bond, monetising revenue generation from voluntary carbon credits, biodiversity credits from new habitat recreation and the Community Infrastructure Levy.

**Sussex Bay kelp:** a carbon model for kelp forest restoration: Adur District and Worthing Borough Councils received £79,000 to support a project designed to restore the kelp beds that have been lost to trawling and create a blue carbon bank to support and sustain the restoration of a large kelp forest in the new Trawler Exclusion Zone between Selsey Bill and Shoreham by exploring the voluntary market in blue carbon sales and monetising revenue streams from kelp restoration in the form of aquaculture, tourism, coastal erosion and flood risk and water quality.

**Warwickshire Carbon and Environmental Markets:** Warwickshire County Council received £72,000 to expand the biodiversity net gain market to woodland carbon and blend public funding for tree planting with carbon credits.

**Developing a Worcestershire Natural Capital Investment Partnership:** Worcestershire County Council received £91,118 to establish a county-wide natural capital investment framework for selling biodiversity credits via a 'habitat bank,' exploring and modelling investment from a reduction of costs associated with flood risk; sequestration of carbon; provision of pollination services; providing physical and mental health benefits to the public through access to nature.

**Cornwall Habitat Bank:** Cornwall Council received £99,404 to develop a countywide habitat bank aiming to be a one-stop-shop with a brokerage service to deliver natural capital enhancements, biodiversity net gain and trial a blue carbon market, ultimately identifying how to blend biodiversity and carbon credits with tourism and wider funding sources.

## Carbon Offsetting Funds

Local carbon pricing obligations can be placed on “Section 106” agreements for new developments when they gain planning approval. These are legal agreements that require developers to undertake actions or make payments to fund infrastructure or other mitigation action to bring developments in line with local climate obligations. Recent changes to Section 106 now allow developer contributions to be pooled in a single offsetting fund, enabling the creation of larger pools of funding to support net zero investment, including in London<sup>xlii</sup>.

As a result, carbon offsetting funds are emerging as tools for local authorities to fund local initiatives to reduce greenhouse gas emissions. These funding initiatives are not standardised and differ significantly across local authority and investment partner entities.

### Advantages of carbon offsetting funds

Carbon offsetting funds are a new source of revenue and can be deployed to a wide range of projects which are directly linked to reducing carbon, such as those in the case study below. Local authorities can directly benefit from carbon offsetting based on contributions from key stakeholders – most notably developers – that are active within that local authority. Entities that emit carbon or other greenhouse gas emissions can pay for initiatives – such as planting trees or regenerative agriculture – that remove carbon from the atmosphere. As a result, their emissions get reduced or cancelled out, with the local authority as a relatively passively involved beneficiary.

**“Entities that emit carbon or other greenhouse gas emissions can pay for initiatives — such as planting trees or regenerative agriculture.”**

## Case Study 7

### Milton Keynes Carbon offset Fund

In 2008, Milton Keynes Council set up a carbon offset fund (COF). Payments are made into the COF by developers, which vary according to economic conditions, but can be as much as £225k - £340k per year. This is then spent by the council on a wide variety of carbon saving initiatives within the city. Some of the benefits of the COF have been:

- **Free home insulation measures (roof & wall cavities) to all MK householders**
- **Grants to help upgrade heating boilers**
- **Free energy efficient lightbulbs to householders**
- **Streetlight upgrades**
- **Rooftop photovoltaic installations on public buildings<sup>xliii</sup>**



## Limitations to carbon offsetting

The limitations of the voluntary carbon markets continue to be widely discussed. Although carbon offsetting has the potential to play a major role in allowing society to continue to emit greenhouse gases while striving towards keeping global temperature increases to no more than 1.5°C, some believe that this initiative allows emitters to continue to release greenhouse gases and, therefore, its viability as a solution to net zero is questionable<sup>xliv</sup>.

The integrity of the underlying projects and the circumstances under which it is appropriate to deploy carbon offsets are areas of particular scrutiny. These are being actively addressed by scientific<sup>xliv</sup> and market<sup>xlvii</sup> experts – their recommendations will be made public during 2022 and will provide guidance as this market develops further.

Local authorities are increasingly recognising the value of carbon offsets and, in the process, are creatively finding solutions to some of the system's limitations. Authority-based insetting frameworks (see Case Study 8) are emerging as a new approach<sup>xlvi</sup>.

**“Increasingly recognising the value of carbon offsets.”**



### Authority-based Insetting Framework

Authority-based Insetting (ABI) is a framework developed by Anthesis in partnership with 13 local authorities. The framework builds on the principles of traditional offsetting, but instead of offsetting using an emissions activity outside of the organisation's scope, it targets emissions that are within its value chain. Insetting seeks to help local authorities keep the additional benefits locally. ABIs are aimed at a wide range of projects that deliver carbon emission reduction locally. Funding is derived locally and can be seen as a mechanism to fund and support local carbon reduction.

## BEIS Net Zero Hubs

The Department of Business, Energy and Industrial Strategy (BEIS) Net Zero Hubs are a government funded programme of investment created to increase public sector capacity to bring forward local net zero projects. There are five Net Zero Hubs across the UK, covering each region: Midlands/North East, Yorkshire & Humber/North West/South East/South West. To date the Government has invested £24.5m in the programme.

The programme is designed to start to build the capacity and capability at a local level to deliver net zero projects and attract commercial investment. As of March 2022, the Hubs have developed a pipeline of projects with £72m in commercial finance leveraged for local net zero projects.

The Hubs are also funded to provide good practice guidance, tools and resources to benefit local authorities across England, and in 2018 supported their 38 LEPs to develop energy strategies.

### Advantages to BEIS Net Zero Hubs

Net Zero Hubs can support local net zero projects at any point from their inception through to the point which they are investment ready. Support is offered in co-ordination, project management or technical capacity, dependent on the stage of the project and the level of governance already in place. Where additional technical support is required, the Hub can also fund and procure external consultancy assistance for a limited number of priority projects or programmes.

Other support programmes include the £10m Rural Community Energy Fund (RCEF), which provided up to £40,000 in stage 1 to cover consultancy and professional costs for the development of a feasibility report in a standard format for a specific project; and, up to £100,000 in grants for full business development and planning<sup>xlviii</sup>.

### Limitations to BEIS Net Zero Hubs

Net Zero Hubs do not provide capital investment support, meaning that local authorities have to attract other sources of commercial investment to fund their projects. Additionally, it is expected that Net Zero Hubs can fill part of the financial advisory and technical assistance gap that local authorities experience, but they do not currently have the capacity to solve this issue in its entirety.



## Other grant programmes

There are numerous other examples of non-repayable grant-based schemes local authorities can apply to for funding. These cover a range of areas including energy efficiency, active transport, nature restoration and so on. A good example is the Climate Action Fund (Lottery Community Fund)

This Fund is a ten-year £100 million fund supporting communities across the UK through grants to take action on climate change<sup>xlix</sup>. These partnership projects aim to reduce the carbon footprint of communities and support community-led movements that can demonstrate what is possible when people take the lead in tackling climate change. Another is the Future Parks Accelerator (see Case Study 9).

**“A ten-year £100 million fund supporting communities across the UK through grants to take action on climate change.”**

## Case Study 9

### Future Parks Accelerator

In February 2019 the Secretary of State for Housing, Communities and Local Government announced an investment of £1.2 million into the Future Parks Accelerator programme. Future Parks Accelerator is a joint National Lottery Heritage Fund and National Trust programme to support eight local authority areas to transform their parks estates, testing and learning from new and innovative models of parks management and funding to create more sustainable parks estates for the future. The learning from the programme will be shared widely to help local authorities to develop sustainable plans for their parks estates.

Newcastle City Council has blazed a trail for the Future Parks Accelerator programme; they have undergone a pioneering journey to set up a Parks and Allotments Trust and in April 2019 transferred their parks and green spaces estate to the Trust on a long lease. During their journey, Newcastle City Council have gathered significant learning and developed key documents which will be of value to many other local authorities. The Government has invested £210,000 to help Newcastle to collate and disseminate their learning with other areas.



# 4

# Conclusions



Local authorities have the potential to play a very significant role in ensuring the UK delivers its net zero 2050 goals if assistance can be provided to build out the skills and capacity needed and provide the project development funding needed to turn concepts into investable projects suitable for financing on commercial or blended terms.

Building technical assistance capacity will be key to scaling up the availability of climate finance to local authorities, from the billion to the hundred of billions. As reported by the National Audit Office, in relation to net zero delivery, currently there are weaknesses in central government's approach to working with local authorities on decarbonisation, stemming from a lack of clarity over local authorities' overall roles, piecemeal funding and diffused accountabilities<sup>ii</sup>. Their constrained resources are focussed on delivering their statutory obligations in other sectors and the Covid-19 crisis has exacerbated this position<sup>iii</sup>.

Central government has been investing in capacity building at the local level, but the National Audit Office found funding for this long-term challenge remains fragmented and short-term. Twenty-two grant funds were available for net zero work, many of which were competitive funds with limited delivery timescales, which can make it difficult for local authorities to plan for the long term. A suggestion made by UK100 and with which we agree, is that **it would be helpful for Government to simplify how it supports the development of Net Zero investment so that developers have a single gateway to understanding the public funding available to them and the policy and regulatory support that underpins local energy investment.**

**But going beyond this, further systematic support for local authorities is needed.**

As UK100 identified, and our research confirmed, the technical but also financial solutions won't be the same everywhere. The local authorities with which the GFI consulted understand the opportunities a portfolio approach to financing solutions brings, especially given local net zero investments are likely to be similar in nature but bespoke to local needs (both in terms of technology and finances). They are also open to the idea of blended financial intermediary structures. Successfully bringing these to market implies **that alongside project development capacity, financial advisory capacity needs to be developed – to which we hope this report makes an initial contribution.**

In our view, a **dedicated net zero delivery facility needs to be launched in the UK to assist local authorities in turning net zero concepts into an investible reality.** This capacity could be deployed to support local authorities working singly or together to raise funds, providing the skills and capacity to support in house teams to transform concepts into project-based procurement plans and business cases with terms sheets to support private sector fundraising.

**As the next stage of this work, the GFI will work with others to set out a blueprint for this offering, which could be provided by a new market entrant or an existing entity such as the UKIB.**

Finally, it is important to reiterate that private investors will only invest when they can see how they will be able to generate an acceptable return. They can potentially also provide some of the development capital needed, but only if there is sufficient market clarity to provide confidence that it can generate an appropriate return for the risks they are asked to take. This is why we emphasise the need for investible business cases to turn positive sentiment into transactions. Where blended rather than commercial finance is most suitable to underpin project delivery, **private investment will need to be underpinned by first loss capital in some cases as well as revenue streams to repay that private sector investment – and where they do not exist or this cannot be achieved (for example due to fuel poverty) will need to be underpinned by grant funding.**

All these factors will need to be reflected into financial advisory services provided to local authorities, to enable them to make the best decision on how to use both public and private capital to deliver net zero investment outcomes at the local level.

# Annex:

## Project development cycle

This annex outlines the various stages of the project development cycle. Climate actions requires different local authority departments to collaborate closely, therefore, it is important that stakeholders are using similar language when discussing and making decisions about the project development of green projects.

**The steps involved in each stage are described in the sections that follow.**

### Supporting project development – the realities

Although there is no standardised approach to developing a green project and different local authorities will likely not follow the same methodology, a project development cycle typically will include the steps shown in Figure 7.

### Identification

Projects are usually identified and championed by politicians or civil servants, in conjunction with input from constituents and with attention to regional and national plans. Failure to identify projects as part of a larger ecosystem and ensuring initiatives receive full community buy-in can lead to many challenges, including abandonment of projects following changes in political administration and/or insufficient funding to deliver a project.

In some areas, local civic leaders and politicians arrange workshops to engage stakeholders as a means of creating community buy-in and generating input to the project identification process. During these workshops, facilitators outline various types of interventions and show how they support achieving long-term strategic objectives. In other instances, projects are proposed and implemented by private sector service providers who suggest projects through unsolicited bids.

At the end of the project identification process, local authorities will have selected those initiatives that are most aligned with their strategic goals and are endorsed by the general constituency. The chosen projects are described in project profiles, which become the basis for later stages in the project development cycle.

## Preparation

Upon completion of the project identification phase, which culminates in the delivery of the project profile, the local authority begins the process of testing the viability and sustainability of the project. Usually, this stage will include a mix of technical studies on the project itself, often covering detailed engineering designs and proposed processes for procurement and project delivery, as well as financial feasibility studies. The costs for the preparation phase can be high, and local authorities often lack the discretionary funds to cover the costs of project preparation, so will often look to Government or charitable foundations for grants to support this work – as set out in the previous section.

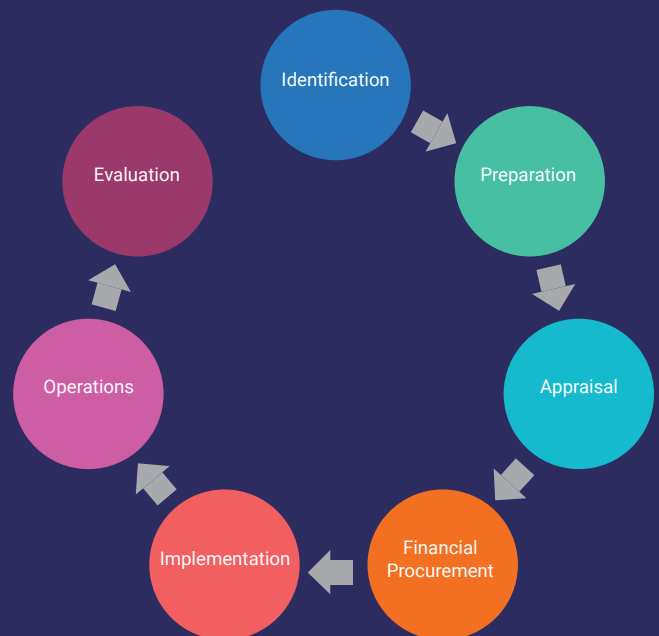
Although enthusiastic about projects and the preparation portion of the project development cycle, senior officials within local authorities often do not have the flexibility to be directly involved in the day-to-day financial and technical feasibility studies of projects. To complete these critical studies in the preparation phase, local authorities traditionally rely on external experts to undertake the studies and identify the most appropriate financing mechanisms to ensure financial sustainability of the projects.

In many instances, the preparation phase principally consists of one key deliverable: a feasibility study. A feasibility study typically contains two parts – business case development, which includes a detailed financial analysis as well as anticipated funding structure, and detailed engineering design. The costs for feasibility studies and detailed plans can be significant. For example, if a project is expected to cost £100 million, pre-transaction costs can be as high as £10 million. Few sources of finance are prepared to commit large amounts of money to test projects with no guarantee the project will be completed, which is why many project sponsors look to development partners for grants to cover these fees.

At the end of the preparation phase, the local authority should have a complete series of comprehensive documents, including detailed engineering for the project (technical feasibility) as well as financial models that support the argument for long-term sustainability (financial feasibility). The local authority also should have identified the overall process for procurement and project delivery (i.e., through traditional public works, through an engineering/procurement/construction (EPC) arrangement, or through a public-private partnership).

Figure 7

Steps involved in a project development cycle





Many Local Authorities approach sources of finance with projects that are either too under-developed or framed with objectives that do not align with the expectations of financiers. To avoid these challenges, it is often helpful for project owners to prepare a brief project profile that can be shared with prospective funders at an early stage in the project development cycle. Although funder expectations can differ significantly, a project profile should contain a minimum of the following:

- **Brief project description (no more than 50 words)**
- **Anticipated governance structure**
- **Sector / sub-sector (ie., expansion of specific line on mass transit system)**
- **Profile of project beneficiaries**
- **Anticipated cost of project**
- **Anticipated useful life of project**
- **Anticipated revenue streams (direct and indirect)**
- **Preferred financing tool**
- **Project sponsor credit history (past transactions on the performance)**
- **Alignment with national / global agendas and development goals**

Sharing this information with potential sources of funding can help project sponsors the course-correct as needed as well as to socialise early-stage concepts.

## Appraisal

Upon completion of the project preparation phase, the design and financial details of the project are presented for confirmation and validation by the relevant decision-making bodies of the local authority.

The project is typically first reviewed by the technical department directly involved in the project. Following validation by the department, the project will usually be considered by the financial department, particularly on the recommendations for options on the financing of the project. With those reviews complete, the project will be shared for comment and discussion by senior officials and, often, the general public before submission to the board for approval (or to go back for further analysis and development). Typically, if a project has demonstrated its soundness through the preparation phase, is well-aligned with council priorities and barring significant criticism from the general public, boards will approve projects that follow these steps.

## Procurement

### Financial procurement

To deliver long-term infrastructure projects, local authorities will generally require external funding and support. As discussed in previous sections, this can come in the form of public or private funding and can be either repayable or non-repayable. The validation received during the appraisal phase should give the project sponsor, and more specifically the financing department, sufficient direction on the type of financing to procure for delivery of the project.

The Section 151 Officer, as the Chief Finance Officer within a Local Authority, drives the process of procurement of financial instruments, with regular feedback to those involved in project delivery. The end of the financial procurement phase marks the end of the pre-transaction component of the project development cycle. From this point, the Local Authority as project sponsor will be well-positioned to deliver on its work as it has:

- **Completed full technical and financial feasibility studies;**
- **Received full buy-in and commitment from key stakeholders on the project; and**
- **Arranged the requisite financing to deliver the project as designed.**

### Technical Procurement

The local authority will also need to bring in the capability to deliver the project. Regardless of whether structured for delivery through traditional public works, an EPC arrangement, or a public-private partnership, the identification of delivery partners with the capacity to deliver the project is essential.

A technical feasibility study you should include, at a minimum:

- **Full engineering and architectural documents for the project**
- **Narrative analysis of the project and any potential challenges that might occur during the project delivery phase**

A financial feasibility study should include, at a minimum:

- **A full financial model for the project delivery phase (i.e. full schedule of costs associated with the completion of the project), often broken out as:**
  - Base costs
  - Contingencies
  - Financial charges during implementation
- **A full financial model for the project upon operationalisation, including a section for repayment to any external financiers and a break-out for operations and maintenance**
- **A deep economic analysis that includes an affordability assessment and preferred procurement method**

## Implementation

The implementation phase is often one of the most exciting parts of the project development cycle, but also one of the riskiest given the range of problems – both anticipated and unanticipated – that can occur in project implementation. By the end of this phase, the project will be completed and made operational. In the implementation phase, local authorities need to determine whether they will attempt to complete the project using internal staff or through external contractors. There are trade-offs associated with the decision, often between cost and quality, but each jurisdiction will have specific procurement rules governing the preferred methodology for project delivery.

By the end of this phase, the project is completed (ideally at or below cost and on or ahead of schedule). Some local authorities incentivise their project delivery teams by offering them bonuses if projects come in below cost or earlier than planned. The completion of the construction phase starts the operational phase of the project and requires careful scrutiny to ensure that the project can reach its full potential and maximum useful life as per the expectations in the feasibility studies.

## Operations

The operational phase begins when construction is complete and the project begins operating. The anticipated useful life of the project can be anywhere from 5-50 years; it is important to ensure that projects meet expectations and continue to function at peak efficiency during the entirety of the anticipated useful life of an asset. Local authorities should consider introducing regular external audits as additional checks on the system. In addition, local authorities should encourage other stakeholders involved with anticipated outcomes from the project to regularly provide feedback on efficiency and efficacy (i.e., public officials responsible for health in the area where the project has been implemented). Ideally, the feasibility studies in the preparation phases will be followed, particularly with relation to long-term operation and maintenance costs to ensure that the project reaches its full anticipated useful life.

## Evaluation

Throughout the entire project development cycle, it is helpful to regularly reflect on whether the project is likely to achieve, or has achieved its goals. A well-designed project development cycle includes consideration of the post-construction phase to:

- 1** Confirm that the project is delivering on its intended goals, particularly on net zero targets.
- 2** Ensure that there are no negative side effects from the project.
- 3** Continue to deliver the service without interruption, which is often guaranteed by the inclusion of sufficient funds in the project budget for operations and maintenance expectations in the feasibility studies.

# Acknowledgements

The Green Finance Institute and Innovate UK would like to recognise the invaluable assistance of the participating local authorities in providing information about their experience of financing local green projects.

We are particularly grateful to those local authorities that were able to provide detailed information through the 1:1 interviews, conducted by the Green Finance Institute, namely Glasgow City Council, West Berkshire Council, London Borough of Islington, Belfast City Council, and Liverpool City Region Combined Authority.

We would also like to thank Arup Group for assessing the progress of local authorities' green projects, relative to shovel-readiness, and key partners of the Green Finance Institute and Innovate UK, such as UK100 and Connected Place Catapult, whose expert opinions were instrumental during the review stage of the report.

Work on the report was led by Dr Jeremy Gorelick and Elhan Cara (of the Green Finance Institute) and Sophie Kempthorne (of Innovate UK). The authors would like to acknowledge the significant contributions of Brian Kilkelly and the edits from Dr Rhian-Mari Thomas, Ingrid Holmes, Dan Godsall, Lauren Pamma, Helen Avery, Adam Standage, and Alessandra Melis. An additional thank you to external reviewers including Kit England from Glasgow City Council, Joseph Holmes from West Berkshire Council, Karen Barrass from UK100, and Elinor Bendell from BEIS. Finally, we would like to thank Mareike Schmidt, Innovate UK, for the role she played in starting the collaboration between the Green Finance Institute and Innovate UK.

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