Phoenix

CATAPULT Energy Systems

Unlocking Regional Investment Through Local Area Energy Planning

March 25

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Foreword

Achieving the UK's Net Zero targets demands not just ambition but also innovative, scalable solutions to finance decarbonisation projects. Local authorities stand at the heart of this effort, playing a pivotal role in driving real, tangible change within their communities.

For years, we have championed the value of Local Area Energy Planning in helping places identify and prioritise actions to reach Net Zero. Yet, turning these plans into actionable, investible propositions is not straightforward. Many of our local authority colleagues have called for greater support in translating plans into viable projects that can attract the necessary investment.

Scaling up this effort requires collaboration across a broad range of investors and stakeholders. That's why we've partnered with Phoenix Group, the UK's largest long-term savings and retirement business, to produce this report. It aims to provide local leaders and investors exploring place-based approaches, with a detailed understanding of the opportunities, the challenges, and the role Local Area Energy Planning can play as a transformative tool.

In addition to these insights, the report offers practical resources tailored for local authority officers, designed to help them confidently develop and apply alternative finance models. Our goal is to empower local authorities with the knowledge and tools they need to turn Net Zero aspirations into action.

This is the first phase of our work and if you would like to take part in further developments, we would welcome your involvement.

CATAPULT
Energy Systems

Guy Newey
Energy Systems Catapult CEO

Phoenix Group is incredibly excited to be partnering with the Energy Systems Catapult on this report. We are the UK's largest long-term savings and retirement business and our goal is to be Net Zero across our investments, own operations and supplier base by 2050. Our actions need to support good outcomes for our customers, who have entrusted us with helping them save for their retirement.

The challenge is huge, and we know that we can't get there alone. Urgent and ambitious action is needed from all stakeholders including policymakers, regulators, regional government, financial institutions and industry. The complexity of the challenge means that effective collaboration between stakeholders will be crucial, and this is central to our approach.

With close to £0.3 trillion assets under administration and 12 million customers, we have the size to make a real difference. We want to scale up our investment in climate solutions and have set an aspiration to invest up to £40 billion in sustainable, transition and productive assets where the investments are in line with good customer outcomes. However, a range of policy, regulatory and market barriers are currently limiting our ability to scale up investment as quickly as we would like.

We want to use our scale and voice to help drive the wider system change needed to unlock greater investment in climate solutions, and our ongoing programme of thought leadership and advocacy is a key element of our Net Zero Transition Plan. Our Unlocking Investment in Climate Solutions report outlines the size of the opportunity and our Charting the UK's Net Zero Future whitepaper sets out our key recommendations for policymakers and regulators to overcome the barriers currently limiting investment.

One of our recommendations is to provide greater support to unlock regional investment in climate solutions. This includes advocating for Local Area Energy Plans (LAEPs) to be adopted as the national framework for place-based whole energy system decarbonisation planning, to encourage regions to develop consistent local transition plans. But for LAEPs to be truly effective, they need to translate into action, and this requires investment.

That's why we're so excited to be partnering with the Energy Systems Catapult. We hope this report will materially help local and combined authorities engage with investors such as Phoenix Group and secure investment for their Net Zero transition. We have a strong track record of partnering with local and regional government and look forward to playing an even bigger part in accelerating their transition to Net Zero.

Phoenix

James Wilde
Phoenix Group Chief Sustainability Officer

1. Introduction

The UK requires an average investment of £26 billion per year of investment through to 2050 to deliver its Net Zero targets.[1] Previous research by and Energy Systems Catapult revealed a place-based approach co-ordinated with national strategic planning can realise significant savings while also delivering additional socio-economic benefits.

As the UK moves towards Net Zero, the decisions and investments required will have a strong local dimension reliant on local leadership. Local Authorities will have a pivotal role in enabling the investment required to achieve Net Zero. They can develop and provide long term strategies and plans which not only show how Net Zero can be achieved but can help send clear signals to supply chains whilst reflecting the characteristics of their areas.

The growing momentum around local planning is being reinforced by increasing recognition and support from both government, regulators and investors. This builds on the groundwork laid out by the Scottish and Welsh governments, both of which have established frameworks to support the development of local approaches to decarbonisation and LAEPs, respectively.[2, 3]

Turning these decarbonisation plans into action remains a complex task, however. A local transition will require co-ordination of key stakeholders, including metro mayors, local authority leaders, developers, regulated utilities and investors, to overcome barriers to the roll out of the Net Zero infrastructure required.

Local Area Energy Planning is a data driven and evidence-based approach that is led by local government, developed collaboratively. It sets out to identify the most cost-effective route for a local area to contribute towards meeting the national Net Zero targets. It provides and area with a level of detail equivalent to an urban master plan, resulting in a fully costed, coordinated spatial and visual plan identifying the change that is needed to the local energy systems and the built environment.

LAEP is designed to help areas and regions progress the transition to Net Zero by strategically planning their energy and infrastructure needs at a local level. Unlike broader decarbonisation strategies, a LAEP focuses on the specific characteristics of each area to tailor energy solutions that address local challenges and opportunities.[4] Furthermore, Ofgem and the National Energy Systems Operator (NESO) have established regional energy strategic plans (RESPs) as part of a coordinated and whole system planning framework. Planned and coordinated local plans will help to identify the strategic investment required by interacting with wider regional energy transition opportunities.

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[1] https://www.theccc.org.uk/publication/the-seventh-carbon-budget/
[2] Right First Time – Scottish Government – January 2021
[3] https://www.gov.wales/10-million-community-driven-energy-projects-power-waless-green-future
[4] Energy Systems Catapult – The Time and Place is now – September 2023

A successful LAEP is defined by its ability to provide local areas with the most cost effective and practical route to decarbonisation, by combining a whole-systems approach, scenario analysis, active stakeholder engagement and data access. This approach identifies project pipelines and helps local authorities and other stakeholders, such as project developers, to make informed decisions, prioritise impactful actions and create a clear, actionable strategy for achieving long-term decarbonisation goals. With a consistent LAEP evidence base, a wide range of investment stakeholders can identify and tailor the type, scale and distribution of finance required, helping to balance public, private and regulatory investment.

To help capture this opportunity, Energy Systems Catapult and Phoenix Group are partnering to create a series of tools and resources designed to support local stakeholders in developing investable portfolios as an output from LAEPs. By combining technical expertise in energy systems with a focus on long-term sustainability and financial viability, these tools aim to bridge the gap between policy ambition and practical implementation.

As part of this collaboration and research, a survey with local government officials via Net Zero Go has been used to tailor these tools and resources, and can help local authorities to navigate critical aspects of energy and investment planning, including:

- Demonstrating best practice of LAEP development
- Understanding of challenges to unlocking investment
- Shaping plans to better attract public and private funding
- Promoting innovation by identifying scalable and replicable investment grade solutions tailored to local conditions
- Facilitating partnerships between local authorities and the financial sector to drive local economic development

We welcome further collaboration with all interested stakeholders to progress the UK's Net Zero transition that can in turn deliver tangible benefits for communities across the country.

2. Place based financing: The opportunity

A place-based approach, tailoring decarbonisation plans to a local area rather than adopting low carbon measures uniformly, has been estimated to potentially deliver double the socio-economic benefits at a third of the cost compared to a national 'one size fits all' strategy.[5] Realising the monetised and non-monetised benefits associated with this approach will require matching the needs of the place to the type of investment, to ensure tailored and efficient use of limited resources.

2.1 The co-benefits of investment into Net Zero

A place-based approach to Net Zero planning and investment could reduce costs and unlock additional local opportunities; providing both financial, economic and social benefits. Research has estimated a place-based approach could save up to £137 billion whilst also generating £431 billion in wider benefits from energy savings and wider societal benefits such as better air quality.[6] Although these estimates are encouraging, it is important to consider how this investment approach translates into additional long-term benefits and growth to help turn estimations into robust expectations. The potential savings to both capital expenditure and ultimately consumer bills will depend on the approach taken as well as the targets met.

Analyses of more localised approaches often attribute significant benefits to social benefits, such as improving public health. A recent example of this is the Catapult's Warm Home Prescription® 2022-2024 trial[7] which determined how investing in low carbon, warm homes can improve people's health and reduce their use of the health service, saving the NHS money overall and easing pressure on frontline staff. The monetised benefits of this trial suggest for every £1 of expenditure, Warm Home Prescription® supported £5.10 of social value to patients.

Additional benefits from Net Zero and place-based investment could be realised from addressing the spare capacity, or the quantity of labour available, in local skills and supply chains. This would supplement the severe shortage of skills with a gap of c.200,000 in key 'green' sectors, which previous research has suggested could set back progress. For example, Nesta estimate that an additional 4-6,000 heat pump installers will be required each year to meet government targets. Increasing diversity in the heating sector[8] along with enhancing employment support and skills offers for experienced workers via 'returnerships' could help to address the UK skills shortage and could be addressed by the recently established Office for Clean Energy Jobs.[9]

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[5] https://iuk.ktn-uk.org/perspectives/accelerating-net-zero-delivery-unlocking-the-benefits-of-climate-action-in-uk-city-regions/
[6] UKRI - Accelerating Net Zero Delivery, 2022
[7] https://es.catapult.org.uk/project/warm-home-prescription/
[8] https://es.catapult.org.uk/report/skills-diversity-in-heating/
[9] Phoenix Group calls for better promotion of green jobs to improve recruitment among over 50s workers | Phoenix Group

Capturing the potential co-benefits of place-based approaches is reliant on identifying, tailoring and scaling the additional investment required to support delivery. Feedback from local areas highlights that securing the right amount of funding is key, but crucially it is also the timing which is vital for project success. Areas and investors alike will need a clear indication of when financial support is required. The introduction and access to financial resources via Great British Energy and National Wealth Fund, provides opportunity for action but requires a clear understanding of local priorities and what projects require investment, where, when, how much they cost, and how many there are to ensure investment opportunities reflect local needs, as far as is possible.

Place-based project aggregation may help to achieve the scale required to attract investors but attempts to scale shouldn't overlook the need for viable business models and returns. Place-based business models which seek to maximise the benefit to local areas are likely to be preferable but are often misunderstood or lack clear cash flows. Therefore, it is important to acknowledge that the approach to local Net Zero delivery in one area may not be suitable for another.[10]

A more coordinated approach across areas is more likely to help identify a wide range of interventions and where they are consistently required, helping investors, developers, energy services companies to appraise what different areas need and the scale of investment required. This would also enable them to look across areas and regions to identify where opportunities for their preferred technology are more certain and the local partners required to enable more innovative approaches. Better location signalling on where new assets should be built will aid investor confidence,[11] and although different investors will have different requirements, they all need a consistent and trusted evidence base.

Different areas have different priorities and resources which will require different activities and partners, respectively. For example, areas may focus on delivering non-financial benefits and will ultimately require grant funding or patient capital support. Alternatively, they may seek to capture a commercial return and in which case their projects would require robust cash flows if they are to attract private investment. Crucially, it is the interaction, coordination and 'matching' between local stakeholders, investors and characteristics of a place, which are required to ensure the strategic case for action aligns with the operational reality. Clearly identifying and clarifying project opportunities would help to ensure opportunities for innovation and project aggregation reflect local demand and ensure appropriate skills and supply chains are developed in response.

Providing the supply chain with a common and trusted evidence base would help to appraise both private and public sector opportunities and allow them to determine how best to innovate and tailor investments to local characteristics. Similarly, a clear understanding of these characteristics would help to enable stronger and more strategic

[10] https://www.lse.ac.uk/granthaminstitute/publication/financing-uk-place-based-climate-action-from-westminster-to-cumberland/

[11] https://www.plsa.co.uk/Portals/0/Documents/Policy-Documents/2024/Pensions-and-Growth-Report-PLSA-2024.pdf

public-private partnerships, collaboration (local authorities, investors, energy networks, community stakeholders, sponsors) and support more immediate investment and project delivery.

2.2 Opportunities to accelerate decarbonisation based on place-based portfolios

Place-based strategies and projects will require tailored business models, based on local development characteristics, to inform high-quality investment prospectuses. The diverse portfolio of technologies and interventions required could create variable and potentially unclear risk profiles across asset backed, non-secured and growth equity investments (please see figure 6). Clear evidence of the opportunity, based on robust data, is required to help investment managers assess and categorise opportunities.

A place-based investment vehicle approach is gaining momentum. When combined with local authority backing this could support economies of scale and has the potential to find a balance where more viable, priority projects are combined with those which are more uncertain. Similarly, investment models focused on specific technologies or sectors will also be required, for example electric vehicle charging and solar PV. The challenge lies in finding enough investable opportunities and models with reasonable pathways to attract mainstream investors, whilst also ensuring these opportunities consider the make-up of the whole local energy system around them and how this is likely to change.

The comparability of different local energy assets and how they might be pooled, such as through contracting for electricity supply between organisations, to remunerate each other could help to maximise synergies in the local energy system and increase confidence in their cash flows. For example, new housing and community energy developments may benefit from co-ordination, not only due to their reliance on, and potential to share, the same infrastructure connections but also through transacting with each other to support more community energy being sold within the local energy system.

The same can be said for a range of local level interventions which are ultimately interconnected via physical and non-physical infrastructure.[12] Continued compliance with data best practice[13] coupled with business model innovation in energy supply and services can help communities and investors to maximise potential revenue streams. The Catapult's previous evaluation of the bills and carbon impact of smart local energy systems suggests that bill savings and emissions reductions can be achieved concurrently.[14] The key lies in identifying and incentivising the location of these assets.

Coordinating spatial and energy planning incentives would help to ensure local policies direct limited resources and capabilities towards building and accelerating innovative investment opportunities. This can be encouraged through an efficient planning system, capable of responding to the needs of the area to help offset investor sensitivity around

[12] https://www.energyrev.org.uk/media/2035/energyrev-finance-framework_202211_final.pdf
[13] https://es.catapult.org.uk/guide/data-best-practice-guidance/
[14] Energy Systems Catapult - Why Smart Local Energy Systems?, 2023

transaction costs and other development risks, and ultimately helping to streamline the decision-making process. Similarly, ensuring regulated network operators are incentivised to take all reasonable steps to satisfy connection requests can help reduce uncertainty and project delays, accelerate development and increase the attractiveness of opportunities for investors.

3. Place based financing: The challenges

Through interviews and surveys with a range of investors and authority officers the following three main challenges were identified for realising place-based investment. Below is a summary with a statement of how Local Area Energy Planning can help begin to overcome them.

The visibility of geographic heterogeneity of opportunities and disruption is lacking	Investments need to be large and long-term	Non-core UK regions experience external finance premium
LAEPs can help with presenting the technical requirements of projects and increase the visibility of technological risks across regions.	The rollout of LAEPs across the UK can help to map out a pipeline of investable projects with a consistent approach across areas.	Investment strategies could be better informed through a LAEP, by highlighting opportunities for high-value job creation, innovation and investment.

Figure 1 – the key challenges to enabling place-based financing

Case Study: Greater Manchester Combined Authority's Strategic Outline Business Case

Greater Manchester set a Net Zero target for 2038 and undertook LAEPs for its city and districts to understand the interventions required to energy infrastructure. The LAEPs indicated that the total investment required was £64.4billion, £12.5billion of which is predominantly in the local public sector's control or influence.

The Strategic Outline Business Case (SOBC) identifies that the public sector will likely need to contribute up to £6.3billion of this to leverage £6.2billion of private sector investment.

The SOBC presents a breakdown of investment needs by five asset classes: generation and storage, heat networks, public sector/non-domestic decarbonisation, social housing/domestic retrofit, and electric vehicle charging infrastructure.

3.1 There is a current lack of visibility of the geographic heterogeneity of opportunities and disruption

Local authorities have historically faced challenges in balancing optimised capital expenditure with their carbon-reduction goals. In addition, the variability in local conditions is not always well understood by investors. This can limit their ability to appreciate the different opportunities across different regions, including visibility of the stakeholders in different areas, project opportunities and an understanding of who they need to engage to progress their investment opportunities. As different types of investors suit different sectors and types of projects, this information should be made easily available to ensure timely advice to the projects being considered.

Net Zero activity is a growing across sectors of the UK economy. However, the economic opportunities are not evenly distributed across the country. Certain regions are predicted to benefit more than others from the expansion of existing and emerging Net Zero sectors. The Social Market Foundation highlights areas within the West Midlands, the North-west, and parts of Wales as scoring the highest for their Net Zero Opportunity Index,[15] shown in 2 below.

The three regions scored higher in key measures such as proximity to renewable energy sites, decarbonising industrial clusters, and top universities for STEM research. **Error! Reference source not found.**3 from CBI Economics and the Energy & Climate Intelligence Unit shows the regional variation in current strength of the Net Zero economy.[16] Some areas which currently have a low proportion of their gross value added (GVA) from Net Zero sectors, such as Knowsley and the Wirral in the North-west, are ranked as areas of high opportunity in

[15] SMF (2021) Zeroing In: Net Zero disruption and opportunity at a local level https://www.smf.co.uk/wp-content/uploads/2021/09/Zeroing-in-Sept2021.pdf

[16] ECIU & CBI Economics (2024) The UK's Net Zero economy: The scale and geography of the Net Zero economy in the UK https://eciu.net/analysis/reports/2024/the-uks-net-zero-economy-2024

2. More work and support is needed to help identify these specific opportunities in local areas with currently low GVA from Net Zero sectors and set the building blocks and principles required to support regional and sectoral decarbonisation pathways.

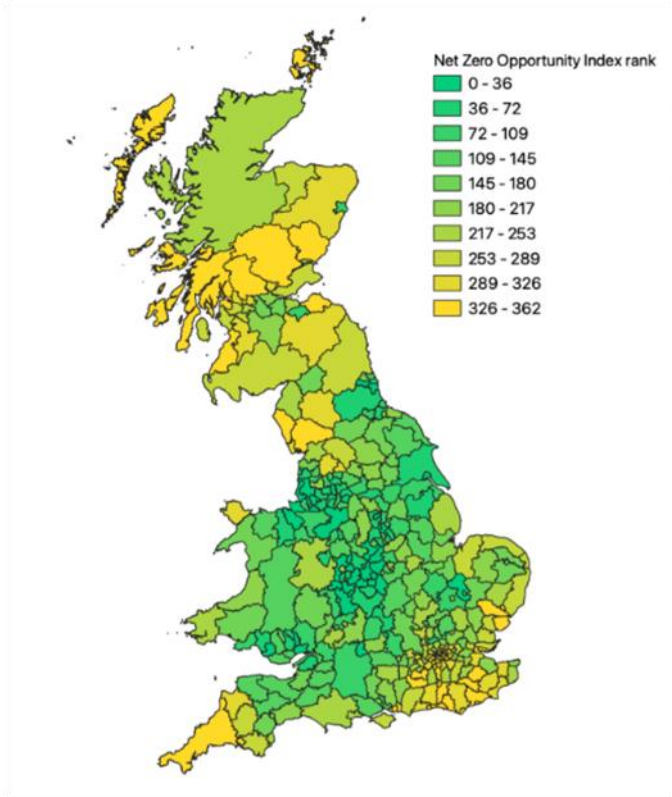

Figure 2 – Net Zero Opportunity index produced by Social Market Foundation

Figure 3 – Proportion of GVA that comes from the Net Zero economy

es.cata

Investments need to be both large and long-term

Without a coordinated plan such as a LAEP, Net Zero projects often arise on an ad hoc basis, prioritised by financial returns of investors rather than the strategic area needs. Similarly, teams within local authorities are often working in silos, with the energy teams separate from the local planning team and from the finance team.

This approach risks pushing up the overall costs of delivering Net Zero. Previous research by the Energy System Catapult[17] estimated that having local energy plans coordinated within a national framework (please see figure 4 for illustration). e.g. Ofgem's new strategic spatial energy plan (SSEP) could reduce overall costs of the UK transition to Net Zero. In addition, an uncoordinated and fragmented approach typically makes it harder to attract the large, long-term investment that regions need. This risks limiting the level of confidence required to enable strategic investment in energy networks i.e. investment ahead of need.

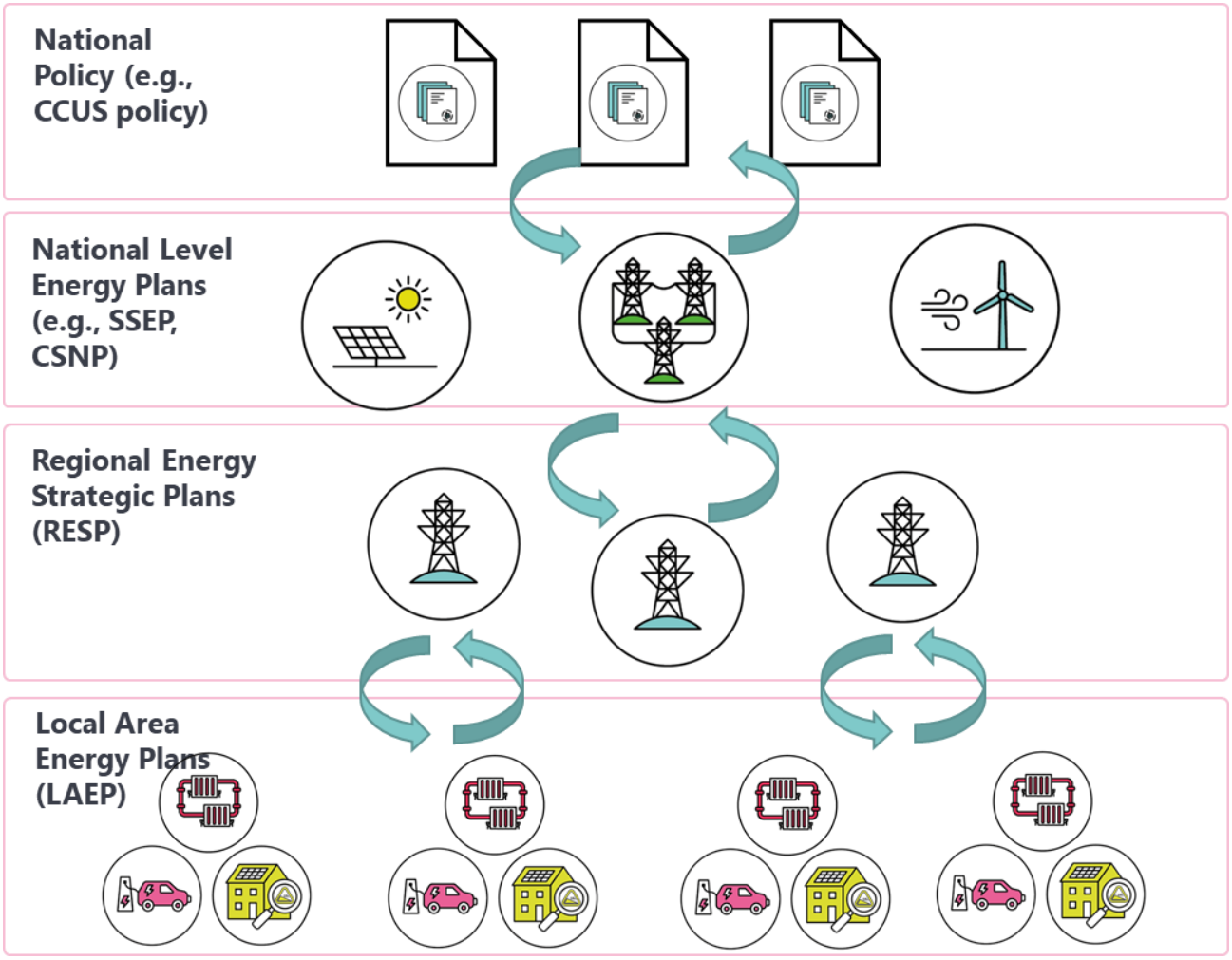

Figure 4 – author's illustration of Ofgem's new strategic planning framework

[17] https://es.catapult.org.uk/report/governance-framework-for-coordinated-local-area-energy-planning/

However, although over 50% of local government respondents to our survey conducted as part of this research confirmed they were considering a range of financing options, 75% highlighted they struggle to find enough capital to invest Net Zero projects, and only 15% were considering private finance. Of the financing options available, 65% agreed grants are their preferred option for financing Net Zero projects. To address this, local authorities need to be made fully aware of the options available along with simple guides on how to develop a 'directory' of opportunities.

Repeatable projects, with risks standardised across different projects and technology based on previous performance, that can be assessed quickly and easily, are usually more appealing to investors. Key to this is ensuring there is a plan to have similar (or identical) terms across project types (e.g. heat networks, rooftop solar) so that an investor can be comfortable that, if they go through the effort of undertaking one heat network project, this process can be replicated for the next. Where not enough projects are available to ensure this, regional collaboration with other local authorities is crucial to bring comfort to investors.

For institutional investors a range of £25-100 million is a fair expectation. Higher rated projects i.e. better credit ratings or more competitive returns on equity investments, may be able to access more borrowing options, but even then, investors would expect a project (or portfolio of projects) size of £10m to warrant their due diligence.

On the timescale, longer is better. 12 – 25 years is normally expected but will depend on whether the entire principal value of the investment is paid in one lump sum on its maturity date or amortized over its lifetime. Similarly, for projects which seek to blend the source of lending, across two tranches for example, repayments may be staggered to accommodate different timescales. For example, a first tranche receiving repayment at year 5 and the second at year 7-12, is quite common. The length of the term will ultimately depend on the nature of the opportunity and the type of investor.

3.2 Disparity across the UK regions leading to external finance premiums

There are differences in perceived financial risk across UK regions, over and above official discount rates. This "external finance premium" of 250-300 basis points associated with certain UK regions can discourage the private sector investment needed in weaker economic regions to reduce inequality.[18] Similarly, some councils are reluctant to funding projects via loans and external investors. Finance Teams are engaged and supportive but tend to take a risk averse view of non-standard finance options. That isn't a criticism, it's part of their role to protect the council's finances. Therefore, there is an opportunity for public sector investment to help de-risk these regions through targeted financial support and additional resources which explain the pros and cons of different approaches for projects. Institutions such as Great British Energy and the National Wealth Fund could play a role to support a just transition, as well as serving as demonstrations for the private

[18] McCann, P. (2023). Levelling Up UK regions: scale-related challenges of Brexit, investment and land use. *Contemporary Social Science*, *18*(3–4), 298–317. https://doi.org/10.1080/21582041.2023.2279534

sector of the potential impact and performance of Net Zero projects. This may mean focusing resources on areas which struggle to attract investment and technologies with a higher perceived commercial risk.

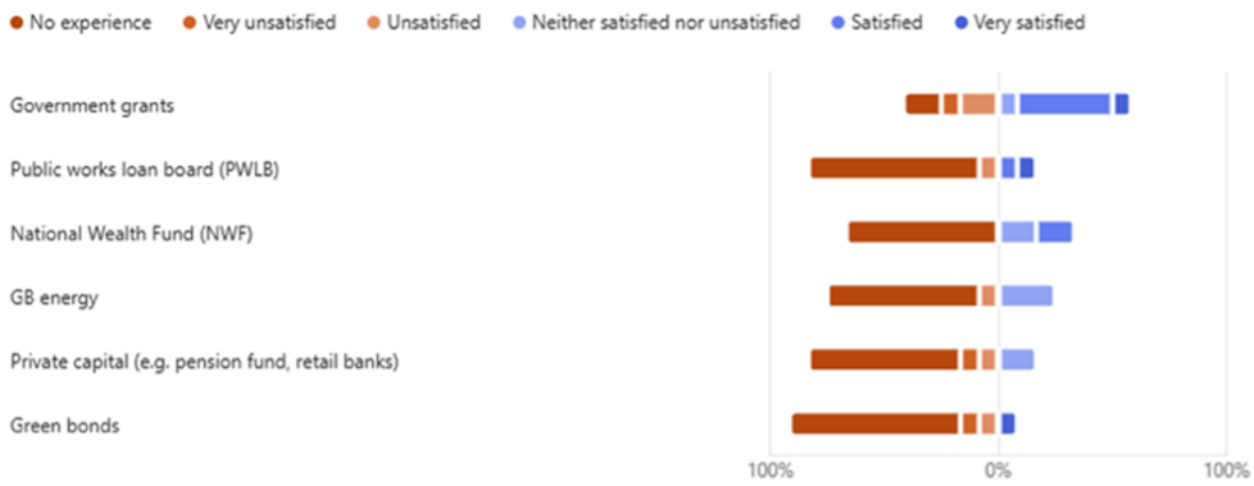

Figure 5 – local government lack experience in engaging with the wide range of finance available (results based on survey conducted as part of this report).

This knowledge will help those local authorities who need support in understanding their credit ratings and risk premiums, as this will affect their ability to secure funding. They may also lack insight into how credit ratings are calculated, and which risks are evaluated. If a local authority has a relatively low credit rating, raising funds can be more expensive. If these funds are for projects which have a high technological risk and uncertain cash flows, then this can become even more expensive. Some Net Zero projects are likely to have high technological risk in the initial years of rollout making it important to understand the risk ratings for projects as well as local authorities' ratings and hence more public support is required to address these risks.

Addressing these issues will be essential to presenting the technical requirements of projects, increasing the visibility of technological risks and ensuring a consistent assessment approach is taken across regions. This consistency is important for investors to have confidence that they're comparing like for like, akin to the Investment Atlas,[19] which was established by central government to help highlight regional investment opportunities across the UK.

[19] https://www.great.gov.uk/international/investment/

4. Local Area Energy Plans and accelerating investment

The success of LAEPs can be attributed to better technological, financial and social outcomes. LAEPs are helping to accelerate project delivery and low carbon infrastructure investment through strategic planning and data led decision making, helping to prioritise limited resources and targeted project consenting.

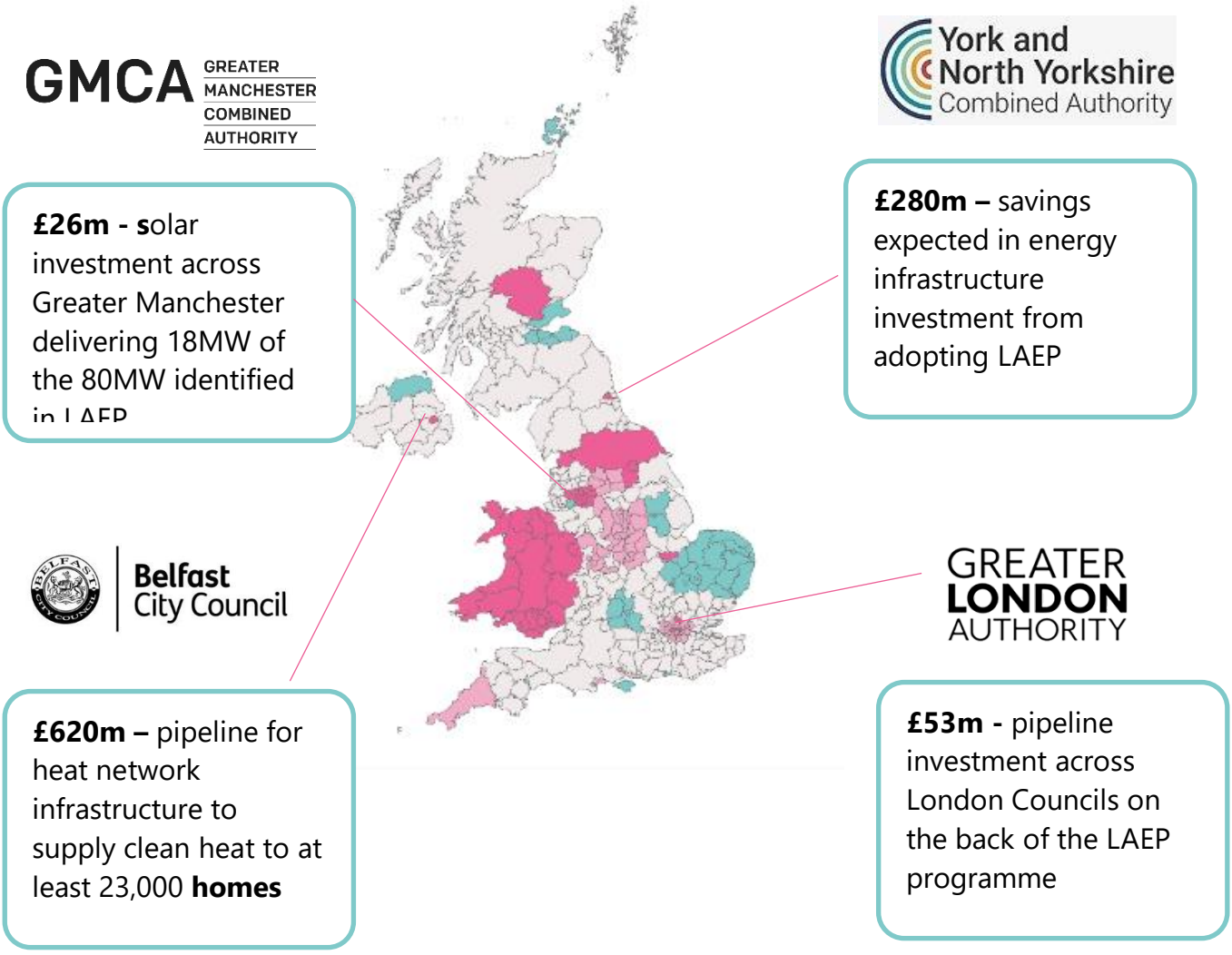

Figure 6 – UK LAEP coverage is unlocking pipelines and projects across the UK

Strategic insight for both public and private sector stakeholders

The strategic insights gained from having LAEPs in Greater Manchester has successfully advanced the region's transition to Net Zero. Since completing their LAEP, GMCA has invested £26 million in 18MW of the 80MW renewable capacity identified in their LAEP and received £6 million in funding from DESNZ to expedite a Net Zero Accelerator programme. This programme is aimed at delivering a £1billion pipeline of public sector low carbon investments and the delivery models required to leverage private finance to support them. The approach has positioned Greater Manchester as a leader and serves as a model for other regions aiming to achieve similar decarbonisation goals.

London is another area leading the way on energy planning. Further to the completion of their sub-regional LAEPs and with one more to follow in 2025, the Greater London Authority (GLA) and London Councils has established a £34 billion London borough project pipeline. £53 million of projects from the pipeline are ready to implement and have been shared with GB Energy. The LAEPs and the granular detail underpinning them have been a key tool in enabling this, and are essential to unlocking the investment needed to ensure London's energy system and infrastructure meets the region's growth ambitions

LAEPs are also supporting the expansion of resources within Councils. Newport Council has been able to justify the expansion of their Climate Change team, including new programme managers and project officers who are focusing effort on implementing strategic opportunities identified in the LAEP. This has resulted in them securing £2m for EV charging hub roll outs, as well as a range of community and local business decarbonisation initiatives.

In addition, a report by the UK government projected that York and North Yorkshire will achieve £280 million in savings through planned energy infrastructure investments such as network upgrades, compared to less localised approaches.[20] These savings are critical to ensuring any increases in consumer bills are minimised as the grid investment required for achieving a Net Zero future unfolds.

LAEPs play a fundamental role in enabling plans to be democratically created and validated with the communities they serve, ensuring there is essential local input to regional and national strategic planning. The key now will be to harness the progress and leadership to date to capture the financing opportunity.

[20] Mission Zero Independent Review of Net Zero – Rt Hon Chris Skidmore

5. Bridging the gap – how to go from LAEP to securing investment

Following the production of a LAEP, the next stage of the process is to consider which projects to take forward as initial priorities and on what basis. A LAEP provides a detailed breakdown of investment needed in an area by technology type. The outputs produced from a LAEP provide the building blocks of an investment case but are insufficient to secure investment in themselves. This section outlines how local authorities can consider financing options and engage with investors to secure finance for priority projects. Guidance follows a five-stage approach as shown in Figure 7.

Figure 7 - Five-stage process for securing finance to implement LAEPs

5.1 Stage 1: Prioritise initial projects

Through the creation of the LAEP, a series of priority projects will have been identified. The LAEP will provide a range of useful data that can be extracted to inform an investment case for these priority projects. Priority projects are defined as near-term interventions that can be immediately implemented to make progress towards Net Zero. The responsibility for leading the development of priority projects should be informed by the intended use e.g. to support business and trade, attract inward investment, accelerate decarbonisation opportunities. Stakeholder engagement is key to identifying these priorities, which should be shaped based on an agreed understanding of how to mobilise quickly. Table 1 and figure 8 below provides a summary of key information to utilise:

LAEP output	Use for investment case
Plan on a page	High level summary of the investment scale needed across an area and in what type of projects
Priority outline projects	Areas the LA wants to prioritise and mobilise quickly
Low regret options	Areas for development with high certainty of delivery happening in next 5 years
Net Zero pathway	Long term strategic overview of what the areas activities and investment needs are likely to be

Table 1: Key LAEP information to inform an investment case

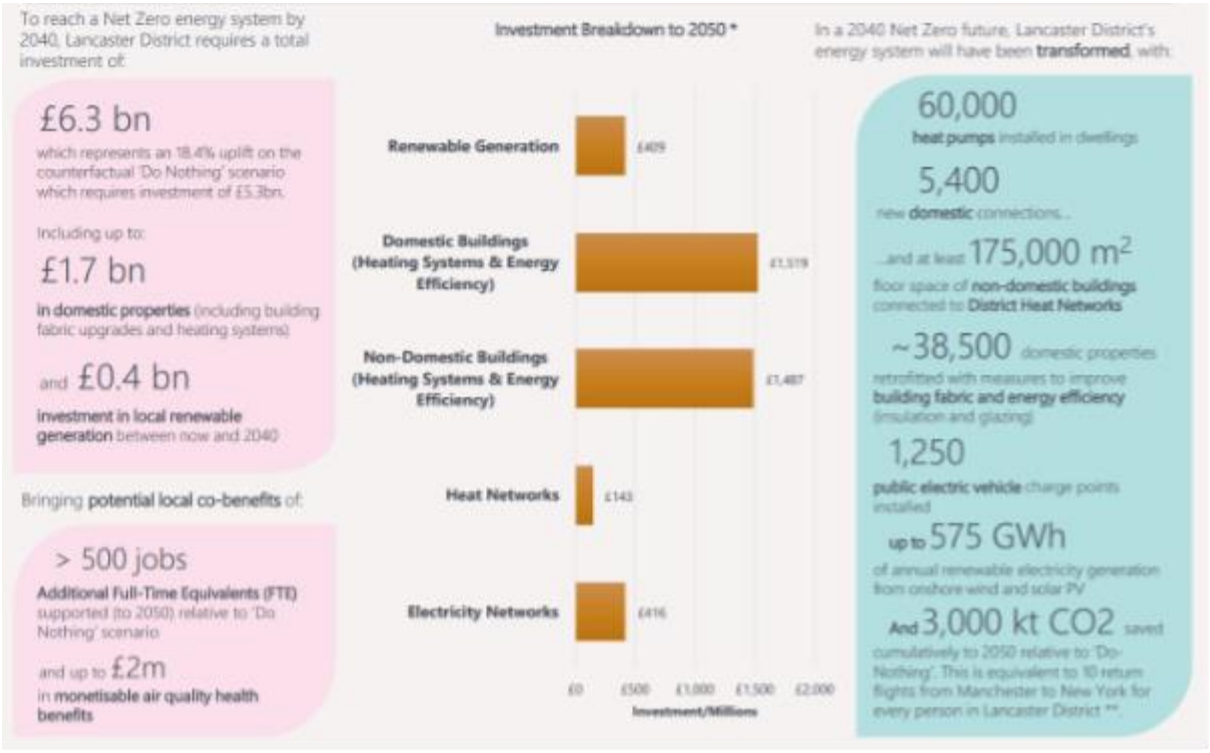

Figure 8 – example LAEP investment breakdown covering renewable generation, domestic and non-buildings, heat networks and electricity networks

5.2 Stage 2: Consider finance options

Following the identification of priority projects, the next step is for local authorities to consider the most appropriate financing options and delivery models. This will be informed by factors such as the level of investment required and local authority's resources (both financial and people), expertise and scope of statutory duties.

Depending on a local authority's specific circumstances, it may favour one of the following delivery models for which there are considerations to be made:

Role	Pros	Cons
Coordinate – act as key convener, bringing together stakeholders such as energy networks, businesses and communities. Secure funding an investment by working with provide sectors partners, government grant and local financing mechanisms.	+ Promotes a joined-up approach across sectors and stakeholders + Ensure local priorities are reflected in plans + Helps secure funding by presenting unified strategy	- Co-ordination can be time-consuming and complex - Requires resources - Challenge to balance diverse stakeholder needs
Facilitate – Delivery led by partners where local authority provides technical and strategic support through engaging communities for supporting projects and enabling projects	+ Reduces barriers to implementation such as planning permissions + Provides guidance and support to local	– Limited financial and technical resources may hinder facilitation efforts – Reliance on external partners can reduce control over outcomes

through securing planning permissions	businesses and community groups + Enhance investor confidence by providing clear frameworks	– Need for streamlined approval processes
Deliver - implement key projects directly, such as district heating schemes, public building retrofits and EV charging infrastructure. Leverage local authority assets, such as land and buildings, to support energy projects	+ Full control over project development and implementation + Ensures that projects align with local needs and Net Zero targets + Potential for long-term revenue generation through energy assets	– Significant financial risk and resource commitment – Requires resources that may not be available in local authorities – Ongoing maintenance and operational responsibilities post-delivery

Table 2 – key considerations for local authority delivery models

In terms of financing options, local authorities need to consider a range of factors.

Prudential regulations and a focus on achieving the best value for money often lead local authority finance teams to prioritise lowest-risk finance options. This is understandable when considering the pressure on revenue budgets and the need for sufficient risk-adjusted hurdle rates to meet internal targets; in some cases, these internal target rates can be as high as 7%.

However, the scale of finance required means a range of financing approaches are likely to be needed including securing private sector investment. Assessing factors such as hurdle rates, the amount of available grant funding, the potential to procure additional grants, and the additional revenue the council needs to provide is vital for acquiring additional project funding. LAEPs can be instrumental in bringing these factors together and enabling stakeholders and decision makers (such as Section 151 Officers and Energy Officers) to consider financing and delivery model options cohesively. This helps to ensure a comprehensive approach to project planning and execution.

There are a range of approaches to funding priority projects that can be considered, depending on the scale of project and preferred delivery model. These approaches are summarised below, and examples shown in Figure 8.

- **Direct investment** – local authorities can fund projects using their own capital or borrowing mechanisms
- **Managed funds** – local authorities can partner with institutional investors or third-party fund managers to deliver energy projects. This can include pooled funds targeting low-carbon infrastructure or public-private partnerships.
- **Place-based funds** – designed to secure investment in a specific locality to channel finance into regional energy projects
- **Venture capital** – for high-growth, innovative energy projects, local authorities can attract private investors such as venture capital or corporate partnerships

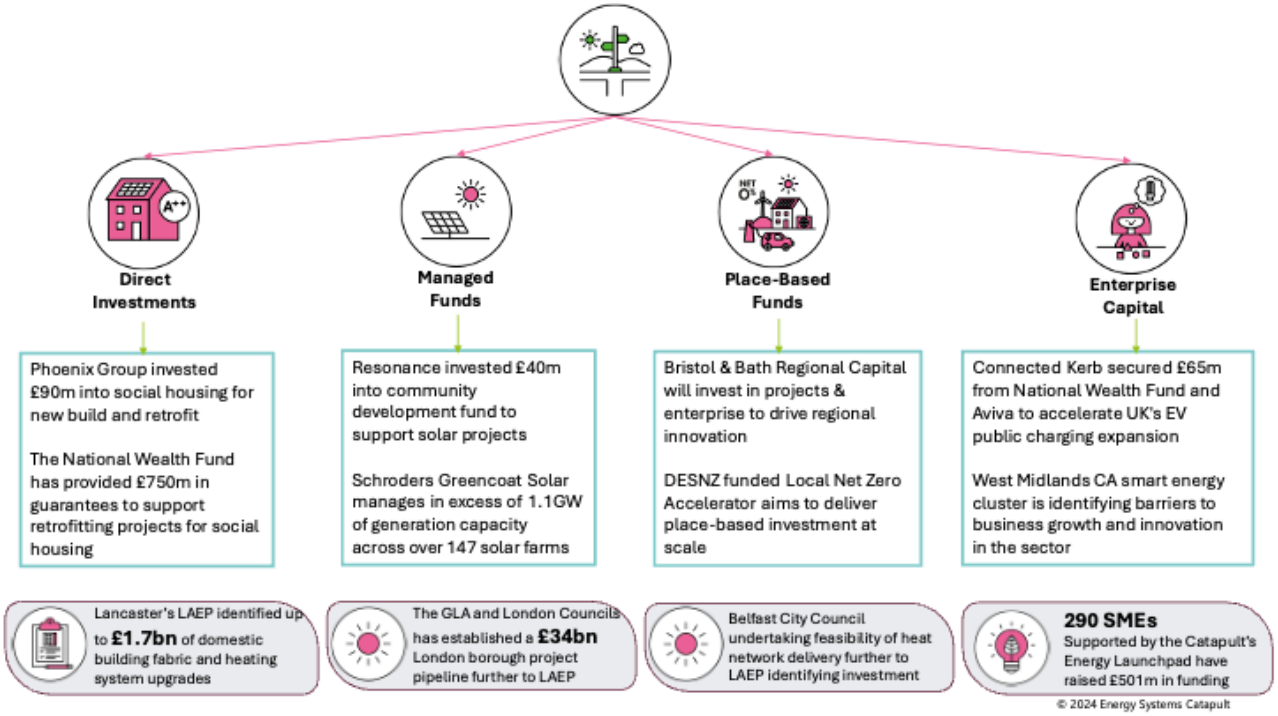

Figure 9 – different approaches to funding and enabling priority projects

Within the 'direct investment' option there are a range of potential public and private funding options to consider. Direct investment gives local authorities the greatest control and is often the least complex model for financing. The range of options are summarised in Table 3 below:

Captial source	Funding type	Investment horizon	Risk appetite	Conditions/ requirement	Advantages/ challenges
Public Works Loan Board (PWLB)	Debt	Short to medium term	High	Low	Cheap borrowing but headroom for larger borrowing is low
Bank Finance	Debt	Short to medium term	High	Strong security packages	Banks react to the economic cycles more than other investor types, but have significant pools of capital to deploy at any scale.
Equity investors (e.g. infrastructure asset managers)	Equity	1-5 years	High*	Cede (some) control to investors unless public entity has experience in the space	Experience in project development and development expenditure. Development expenditure (Devex) is the earliest stage, riskiest finance but essential for projects to get off the planning board.

Institutional debt Investors	Debt	Long term (7+ years)	Low	Larger ticket sizes, investment grade credit rating of the project	Institutional debt investors are willing to invest for up to and over 40 years, but are risk averse
Energy service company (ESCO)	Normally debt	3-5, 7-15 years	Medium	Full operational and construction control. Often called Flexible term Agreement or a Discounted Energy Purchase	Will finance smaller projects and spread the cost of bringing an asset online over a longer time period. Normally require higher rates of return but may fit the LA profile better.

Table 3 – funding options for direct investments

Net Zero Go provides various resources for local authority teams working on local Net Zero energy projects, from renewable energy generation to heat, from transport to building decarbonisation, that can be useful to assess financing options and stakeholder engagement.

5.3 Stage 3 Finalise prioritisation with stakeholders

Following the identification of priority projects and an initial assessment of financing options and delivery models, the next step is to engage with key stakeholders within the local authority. Early but meaningful engagements with internal teams help establish a shared understanding of the strategic nature of projects, and the ambition behind them. It also helps to build a clear picture of available internal resources and constraints. Collaboration with Section 151 Officers to align financing strategies with local authority budgets and governance processes is key to understanding projects and therefore prioritise low-regret opportunities.

Internal stakeholder engagements can be made more effective by sharing key project information in an easy-to-engage with framework. This can make it significantly easier for energy and treasury officials to evaluate the recommended financing options and delivery models. It also helps to answer basic questions about project such as what it is, why it's important, and when it's likely to happen. In this way, LAEPs can help guide and co-ordinate discussions with internal stakeholders to and support joined up with a strategic decision making.

The considerations summarised in table 4 below may be useful for sharing project investment opportunities with internal stakeholders and facilitating discussions to agree a final prioritisation list of projects considered to be low-regret opportunities with a high certainty of going ahead in the short-term.

Consideration	Guidance for local authorities
Which projects have you prioritised resources for? What resources are these?	For example: capital spend, human resources, etc.
What proportion of your required capital spend within LAEP (as %) is statutory?	% based on statutory obligations in the LAEP (e.g. social housing)
Which prioritised projects are you looking to take forward first?	List of priority projects following LAEP production
Are the priority project statutory requirements?	List of priority projects that fall under statutory responsibilities
Have you considered funding options for different projects?	Guidance of funding options in section 2 above
Are you willing to consider joint delivery models to tackle assets which fall in and out of the council's control?	Examples could include project Special Purpose Vehicle (SPV) structure with developers
Would you be able to utilise Public Works Loan Board (PWLB) lending to fund these projects?	Review if scale of financing can be accommodated by PWLB
Have you undertaken financial modelling of the project?	A key step for investors will be to see cashflows of projects to assess if cashflow is positive or negative

Table 4 Key consideration for agreeing final set of priority projects with internal stakeholders

Following the review of projects against the framework, local authorities can then refine the initial prioritisation into a final set of prioritised projects consider to be low regret opportunities with a high certainty of going ahead in the short-term.

5.4 Stage 4: Develop an investment prospectus

Following the refinement of priority projects, the next stage is to develop an investment prospectus. This will be crucial to securing private financing, which will almost certainly be needed given the scale of investment required and constraints on grant and Public Works Loans Board financing. To ensure LAEPs are investible, a robust investor engagement and funding strategy is critical.

Early engagement with potential investors can be hugely beneficial in helping to understand their appetite for investment and how to structure financing of projects to attract investment accordingly.

Investors will want to understand the scale of the investment and project feasibility, which is influenced by characteristics such as number of individual projects and project maturity of the different technologies involved. At this stage the information investors need is still

relatively high level. Table 5 below is a suggested format for presenting the information to investors to tee up initial exploratory conversations.

Project	Time horizon for project	Number of projects	Capex required (bn)	Opex required (bn)
Heat Networks	3-5 years	3	£1.1	£1.2
Electric Vehicle Infrastructure				
Social Housing Retrofit				
Generation & Storage				

Table 5 - Suggested format for presenting key information to investors

This information will form the basis of a more detailed investment prospectus. A well-crafted prospectus that communicates the investment requirement and project commerciality can make a huge difference to the quality of investor engagement and likelihood of securing finance. Investment prospectuses need to include the following information:

- Governing body – the authority making planning decisions
- Planning approval process – stage of planning approval for project
- Project name
- Project location
- Development value – gross development value (£m)
- Project technical information – overview of underlying technology
- Project maturity – stage of project (e.g. feasibility study, xxx etc)
- Desired delivery model (e.g. debt funded, on balance sheet, project special purpose vehicle (SPV), equity share and control provisions etc).

Local authorities may consider a range of funding options tailored to the scale, risk profile and stage of energy projects. This can be discussed with investors before presenting the financing structure of the investment opportunity. When local authorities go out to market with projects to larger investors, the key financial terms will be presented in the form of:

- Credit rating (for debt funding)
- Security status
- Amount of capital to raise
- Expected returns (for equity investments)
- Structure of the transaction and project life/tenor for debt funding.

Some partners such as energy companies may work with local authorities from much earlier in the project identification and development process, in which case there would be no need for the financial information. A local authority's credit rating will affect the rate at which can secure debt finance (i.e. borrow), although this is not applicable to equity financing.

5.5 Stage 5: Engage investors

Following the creation of an investment prospectus, local authorities will need to utilise a range of engagement opportunities to attract investors to maximise funding success. Local authorities can engage undertake the following engagements:

- **Utilise the National Wealth Fund Advisory team** to review and advise on funding sources including the National Wealth Fund itself.
- **Showcase investment opportunities and build relationships** – leverage event opportunities, such as UK Real Estate Investment & Infrastructure Forum (UKREiiF), to showcase investment opportunity of local authority and region
- **Leverage networks –** work with organisations such as Energy Systems Catapult, Core Cities to connect with investors and innovators in the energy ecosystem
- **Direct engagement** – local authorities may have worked with investors on other project financing previously and therefore may have developed relevant working relationships

5.6 Stage 6: Identifying areas for future development

Whilst priority projects are the best way to accelerate initial progress on decarbonisation, iterative development of additional projects to ensure full place decarbonisation will be needed. Some of these additional projects may require innovative, non-standard delivery models, and will therefore be more complicated and challenging to deliver.

There are a wide range of considerations with innovative delivery models, for example technologies, performance, potential revenue streams (i.e. energy sales, operational savings and export tariffs), and how performance may vary over time. The additional cost and complexity this will likely entail needs to be weighed up against the benefits innovative delivery models will ultimately unlock.

To continue progress of decarbonisation of their area, beyond immediate priority projects local authorities will need to strategically plan for what types of funding and financing are required in the long run. This can help to identify the action required from individuals, developers, supply chains and investors, and ultimately how best to scale investment.

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