Phoenix

Unlocking investment to support the net zero transition

Policy White Paper

Phoenix Group Holdings plc

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Report acknowledgements

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Executive summary

The United Kingdom is at a pivotal moment in its journey towards net zero emissions by 2050, presenting a unique opportunity to align climate goals with economic growth

The UK's transition to a low-carbon economy is a strategic economic opportunity. If delivered effectively, it can drive innovation, attract long-term investment, support regional regeneration and boost industrial competitiveness. It offers the potential to create high-quality, future-facing jobs and establish the UK as a global leader in clean energy technologies. Crucially, the transition will strengthen the UK's energy resilience, enhance national security and reduce the country's exposure to the volatility of global energy markets.

Delivering net zero will require unprecedented levels of capital investment in clean energy projects, sustainable infrastructure and emerging technologies. To meet the Clean Power 2030 target, a key pillar of the transition, an estimated £38 billion per year in capital investment is needed – 65 to 90% of which must come from the private sector[1]. However, the UK currently faces a significant investment shortfall. Historically, average annual investment in this space has been just £19.2 billion, leaving a finance gap of £18.9 billion per year[2].

Mobilising capital at the scale required to close the finance gap will require investment from across the entire capital spectrum. The UK pensions and insurance sectors, which collectively manage £3.1 trillion in assets, could contribute up to 50% of the required investment[3]. The sector's long-term, patient capital is well suited to financing the sustained investment needed in renewable energy and large-scale infrastructure over the coming decades. As a provider of pension and savings solutions, Phoenix Group's primary focus is to deliver good financial outcomes for our members and customers. We believe that by successfully navigating a transition to a net zero future, we can improve risk-adjusted returns.

However, barriers are currently limiting both the supply of and demand for finance – and both need to be addressed. Regulatory constraints, the cost of capital and competition with bank financing affect institutional investors' ability to supply finance. At the same time, a limited pipeline of well-structured, investible projects – combined with a lack of policy and market certainty – continues to constrain the demand for finance.

This paper sets out targeted recommendations for government departments and regulators to overcome the barriers to investment. They are informed by discussions with leaders from industry, finance, and government and are designed to be deliverable within today's fiscally constrained environment.

The recommendations are intended to inform the government's upcoming Industrial Strategy (which should integrate decarbonisation as a central pillar) and Carbon Budget Delivery Plan, and influence the roles played by public institutions including the National Wealth Fund and Great British (GB) Energy. Their ultimate goal is to help unlock investment in the net zero transition in support of growth, job creation and secure, affordable clean energy.

Overarching policy recommendations

1. **Crowd in institutional investment via the National Wealth Fund**
2. **Empower regions of the UK to facilitate investment**
3. **Develop Sectoral Investment Roadmaps to provide investor certainty**
4. **Address regulatory and structural barriers to unlock institutional investor capital**

Detailed policy recommendations are provided on the following page

1 Seventh Carbon Budget
2 Baringa, E3G, WWF: UK Power Sector: Delivering a Sectoral Investment Roadmap
3 Phoenix Group calls for increased private sector investment across UK regions to deliver net zero I Phoenix Group

Executive summary continued

Summary of detailed recommendations

Overarching policy recommendations	Summary of detailed policy recommendations
1. Crowd in institutional investment via the National Wealth Fund **Further details on pages 7-8**	• **Redesign National Wealth Fund (NWF) guarantees to include make-whole provisions:** The NWF should offer periodic payments to better align with insurers' regulatory requirements. • **Ensure targeted investment:** The NWF should target investments where its capital can add the most value by derisking projects to crowd in private investment rather than compete with it. • **Develop the UK's infrastructure and regional investment pipeline:** The National Infrastructure and Service Transformation Authority (NISTA) should work with the NWF, GB Energy and metro mayors to develop the UK's infrastructure pipeline. • **Create aggregation vehicles to scale investment:** The NWF should support the creation of aggregation vehicles to pool fragmented assets like heat pumps into larger, investible portfolios. • **Collaborate with metro mayors to support planning and delivery of projects:** The Strategic Public Investment Forum should engage metro mayors to enhance coordination and effectiveness in regional infrastructure planning and delivery.
Empower regions of the UK to facilitate investment **Further details on pages 9-10**	• **Endorse Local Area Energy Plans (LAEPs) as the national model for place-based decarbonisation and integrate them into national planning and energy network governance:** Department for Energy Security and Net Zero (DESNZ) should ensure all local authorities adopt LAEPs and integrate them into energy network governance and Regional Energy Spatial Plans (RESPs). Ministry of Housing, Communities, Local Government (MHCLG) should make LAEPs mandatory in national planning policies to drive decarbonisation projects. • **Empower regions through devolution:** By enabling local authorities to raise funds, build capacity, and access development expenditure for priority projects. MHCLG should facilitate financial resource generation for LAEP; DESNZ should support capacity building, GB Energy should fund feasibility assessments; and HM Treasury (HMT), MHCLG, and DESNZ should incorporate net zero infrastructure funding within devolution deals. • **Establish a regional brokerage to increase connection between investors and regions:** HMT should expand the Office for Investment remit to become regional broker between investors and regions across the UK.
Develop Sectoral Investment Roadmaps to provide investor certainty **Further details on page 11**	• **Develop structured sectoral investment roadmaps to provide policy certainty:** DESNZ and HMT to lead cross-government development of sectoral investment roadmaps. • **Develop tracking mechanisms for sectoral investment flows:** DESNZ to create tracking mechanisms to understand investment flows for the low carbon transition and seek private sector engagement to overcome investment barriers.
Address regulatory and structural barriers to unlock institutional investor capital **Further details on page 12-14**	• **Evolve the regulatory framework:** The Prudential Regulation Authority (PRA) should continue to work in close partnership with industry to keep evolving the regulatory framework in support of unlocking greater investment in climate solutions and other productive assets. • **Encourage consolidation in UK Pensions:** HMT and Department for Work and Pensions (DWP) should develop mechanisms to consolidate and scale up pension schemes, including through setting a minimum operation size threshold for defaults and streamlining the bulk transfer process in contract-based schemes. • **Evolve the Value for Money Framework:** DWP should articulate the need to focus on value rather than cost to clearly set expectations for investing in growth assets rather than purely pursuing lower fees. • **Incentivise domestic investment:** HMT should consider lowering stamp duty on UK shares to a more competitive rate in line with other developed markets and explore targeted tax incentives for pension funds that allocate a significant portion of their assets to UK infrastructure. • **Support delivery of the Mansion House Accord:** Government needs to support efforts to increase the availability of investible productive asset opportunities. • **Develop a pension reform roadmap:** DWP should outline a policy and regulatory reform roadmap, informed by recent consultations undertaken by the Pensions Investment Review.

The investment need

Delivering net zero will require huge investment, including c.£40 billion per annum to deliver the Clean Power 2030 Action Plan. The UK pensions and insurance sector could meet up to 50% of the overall investment – but only if barriers can be overcome

The UK needs to significantly scale up its investment in climate solutions
Meeting net zero targets will depend on significant, large-scale capital investment in clean energy projects, sustainable infrastructure and emerging technologies. The Climate Change Committee estimates that £26 billion of investment will be required between 2025 and 2050[4].

The annual investment needed over the next five years to achieving the Clean Power 2030 target, an essential milestone in the UK's net zero journey, is even higher. It is estimated to require around £38 billion of annual investment from 2025 to 2030, with the majority (65-90%) expected to be delivered by the private sector[4,5].

This broadly aligns with the National Energy System Operator's (NESO) assessment under its 'New Dispatch' scenario. Under this scenario, NESO estimates that c.£30 billion per annum investment is needed for energy generation assets over the next five years, plus £13 billion per annum for power networks, as summarised in Figure 1.

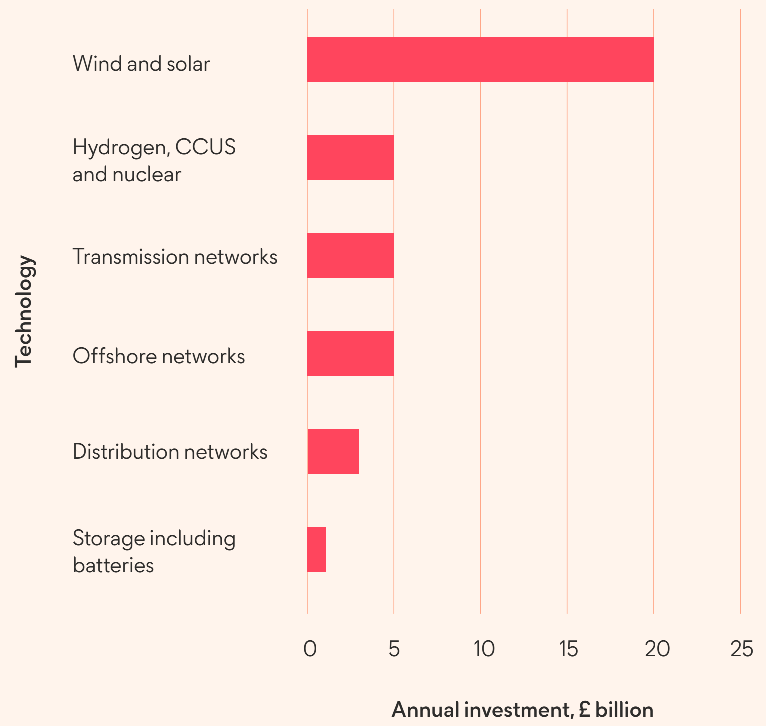
The investment in energy generation assets is dominated by wind and solar (collectively accounting for £20 billion per annum), along with hydrogen, carbon capture usage and storage (CCUS), nuclear and energy storage including batteries. The investment in power networks is split relatively evenly between transmission networks, distribution networks and offshore grids and connections.

The UK pensions and insurance sector could meet up to half of the overall investment – if barriers are overcome
Historically, average annual investment in this space has been c.£19 billion. Mobilising capital at the scale needed to close the finance gap will therefore require the full potential of the financial ecosystem to be unlocked.

The UK pensions and insurance sectors, which collectively manage £3.1 trillion in assets, could contribute up to 50% of the required investment, and the sector's long-term, patient capital should be well-suited to financing the sustained investment needed in renewable energy and large-scale infrastructure[6].

However, previous Phoenix Group analysis showed that, based on current run rates, the sector is currently on track to invest closer to 15% of the overall investment needed, in spite of ambitions to do more[6]. This is due to a range of policy, regulatory and market barriers which are limiting companies' ability to invest in ways that deliver customer value and align with fiduciary duty.

Figure 1 – Annual investment needed between 2025 and 2030 to deliver the Clean Power 2030 Action Plan



4 [Seventh Carbon Budget -Climate Change Committee]
5 [Clean Power 2030 Action Plan]
6 [Unlocking Investment in Climate Solutions - Phoenix Group]

Barriers to investment

To meet the funding required to progress to UK's net zero transition, there is a need to crowd in investment from across the entire capital spectrum. But current policy frameworks, market structures and regulatory constraints often restrict institutional investors, ability to invest in productive assets, including climate assets, at the scale that could drive the necessary economic growth in the UK economy

1 Competition with bank financing

Much of the infrastructure and energy transition project financing happening today is being driven by banks, whose business models and regulatory treatment favour short- and medium-term debt. In contrast, insurers can potentially offer longer-term capital at a lower cost. But insurance capital is often sidelined due to regulatory constraints, like Matching Adjustment eligibility, or a lack of suitably structured investment opportunities. As the scale of investment required for the net zero transition grows, bank balance sheets alone will not be sufficient to meet the demand, which means it will be essential to mobilise the full capital spectrum. It will therefore be necessary to create conditions, both regulatory and market-based, that enable greater participation from institutional investors. Public institutions such as the NWF and GB Energy will have a crucial role to play in unlocking investment, but only if their products and services are designed with the full investor spectrum in mind.

Policy recommendations to address competition with bank financing are covered on pages 7-8.

2 Limited regional project pipelines

A shortage of investible projects continues to limit the pace of the net zero transition. Much of the transition will ultimately be delivered regionally through local and combined authorities and, while there is no shortage of ambition and appetite, many projects currently being developed do not meet investors' risk-return profiles and other requirements. This is especially true for emerging technologies such as carbon capture usage and storage (CCUS), where the lack of long-term performance data and commercial track record makes projects too risky for many institutional investors, who tend to be risk averse with a preference for long-term, stable cash flows. This disconnect is often exacerbated by a lack of experience within local authorities of engaging with investors coupled with inconsistent devolved powers, both of which can mean they struggle to effectively position investment opportunities with the right audiences.

Policy recommendations to address limited regional project pipelines are covered on pages 9-10.

3 Policy and market uncertainty

Across all sectors, a consistent requirement for investment is confidence in long-term policy direction and clarity on strategic priorities. Institutional investors particularly welcome long-term policy certainty when deciding capital allocation, given the long duration of their investments. Whilst the UK has a clear net zero ambition, it still lacks a unified national roadmap to deliver on that ambition, and it can be unclear how planned policy interventions in key sectors will effectively unlock private sector finance at the scale required to fund the transition. This can make it harder for institutional investors to allocate capital and resource. The lack of a robust and timely tracking mechanism of financial flows into the net zero transition also makes it hard for policymakers to gauge the effectiveness of their interventions, which means that policy refinements can be slow.

Policy recommendations to address policy and market uncertainty are covered on page 11.

4 Regulatory constraints

Pension funds and insurers play a key role in long-term investment, but investment needs to happen within strict regulatory frameworks such as Solvency UK. To protect policyholders, insurers must hold capital against liabilities, with incentives to invest in assets with highly predictable cash flows via the Matching Adjustment. This restricts their ability to fund assets with less certain or unproven returns – including new and emerging assets where returns are ultimately expected to be deemed highly predictable, but which currently lack an empirical track record. This applies to a range of climate solutions and associated technologies. Institutional investors also face other regulatory and structural barriers to investing in the net zero transition including the focus on cost rather than value, tax disincentives to investing in the UK and diseconomies of scale due to the highly fragmented pensions landscape.

Policy recommendations to address regulatory constraints are covered on pages 12-14.

Recommendation 1:
Crowd in institutional investment via the National Wealth Fund

The National Wealth Fund can play a crucial role in unlocking investment in the net zero transition from the pensions and insurance sectors

Context

The NWF has been capitalised with £27.8 billion to support the net zero transition and unlock investment in other productive assets. It is already working to mobilise private capital through blended finance mechanisms such as guarantees, which can help reduce investment risk, thereby improving their attractiveness to private investors. With its target capital mobilisation ratio of three pounds of private investment for every one pound of public capital invested, it has the potential to play a genuinely catalytic role.

There is strong potential for the NWF to become a strategic partner for the pensions and insurance sector and firms such as Phoenix Group have welcomed its early engagement. However, the NWF's current approach is primarily focused on unlocking bank capital, which operates within a different regulatory and market framework. We have identified five areas where the NWF can shape its products and services to overcome barriers and unlock investment from the pensions and insurance sector. Doing so would also support the wider goal for UK pension funds to increase their investments in UK assets.

Overcoming barriers to investment

Redesign NWF guarantees to include make-whole provisions

The NWF's current suite of guarantees are not fully aligned with the specific investment needs of pension funds and insurers. One key issue is the NWF's current position on make-whole provisions—a critical feature for many long-term institutional investors—which are not currently covered by its guarantees. While NWF guarantees typically cover 70–80% of principal and interest, they exclude make-whole compensation, unpaid interest in the event of early redemption, and ongoing interest payments in the event of default. Instead, they are structured to provide a single lump sum payment at project completion or maturity. This approach does not align with the requirements for MA eligibility under Solvency UK, which prioritises highly predictable, ongoing cash flows.

Make-whole provisions are essential because they ensure that if a bond or loan is repaid early, the investor is compensated for the loss of expected future income—thereby preserving the asset's cash flow profile. In the absence of such provisions, early repayments introduce reinvestment risk and cash flow volatility, reducing the asset's suitability for MA treatment and increasing complexity for insurers managing portfolios under this framework. This misalignment creates a significant barrier to investment by institutional investors, particularly insurers. To address this, the NWF should consider expanding its guarantees to include make-whole provisions, thereby enhancing their utility for pension funds and insurance companies.

Forthcoming Solvency UK reforms are expected to alter these requirements, potentially allowing insurers to accept guarantees that do not include make-whole provisions or cover cash flows through to legal maturity. However, the applicability and efficiency of such guarantees will differ across firms, and their suitability should be evaluated on a case-by-case basis through direct engagement with individual insurers.

To ensure that guarantee structures effectively support MA-eligible investment propositions, closer coordination is needed between the NWF, HM Treasury, the Prudential Regulation Authority (PRA), and industry stakeholders. This dialogue should take place through the Association of British Insurers' (ABI) Investment Viability Group to foster a shared understanding of how institutional investors assess NWF guarantees.

Ensure targeted investment

To effectively catalyse private sector investment, the NWF should focus on crowding in institutional capital in areas that would not otherwise meet investors' risk-return requirements. The NWF should avoid competing with private capital by targeting areas where private investors are less likely to invest and working together with investors to provide a viable alternative to bank financing, thereby mobilising additional capital rather than crowding it out.

Develop UK infrastructure pipeline

Pension funds and insurers would benefit from greater clarity on the pipeline of investable assets available through the NWF and GB Energy. To support this, the National Infrastructure and Service Transformation Authority (NISTA) should collaborate with the NWF, GB Energy and other public finance institutions to coordinate the development of a strategic infrastructure project pipeline as part of the UK's forthcoming 10-Year Infrastructure Strategy. This pipeline should be informed by input from metro mayors, local authorities, and project developers to help identify and prioritise nationally significant projects.

A useful model to consider is the Australia New Zealand Infrastructure Pipeline, which provides a comprehensive database of infrastructure projects with the potential to attract private capital. It also tracks project progress from initial announcement through to completion. Adopting a similar approach in the UK would enhance transparency, support long-term investment planning, and give institutional investors the confidence needed to commit capital at scale.

Recommendation 1:
Crowd in institutional investment via the National Wealth Fund continued

Create aggregation vehicles to scale investment

The NWF has the potential to play a vital role in scaling investment into technologies such as electric vehicle (EV) charging infrastructure and heat pumps, where opportunities are fragmented and individually small. As such, they lack the scale necessary to attract institutional capital, where investors typically require minimum ticket sizes ranging from tens to hundreds of millions of pounds.

One promising initiative is the Green Transition Funds (GTFs) proposed by the Green Finance Institute (GFI) and the ABI, which aim to channel billions in private finance towards green infrastructure. The proposed funds would focus on real assets that are currently reliant on grant funding. Under this model, a special purpose vehicle (SPV) would issue green bonds, with the proceeds used to capitalise the GTF. The fund would then make secured loans to developers of critical infrastructure projects. The British Business Bank's British Growth Partnership is an example where there is precedent for designing public finance institution models to crowd in institutional investment.

Given that many net zero infrastructure assets lack the performance data necessary to support standalone investment, the NWF could enhance the model by guaranteeing a portion of the loan repayments. This would significantly reduce perceived risk for investors. Aggregating smaller projects into a single investment vehicle has several advantages, including potentially enabling MA eligibility under Solvency UK, by creating a more diversified and lower-risk portfolio. Over time, as performance data is collected and the investment case is proven, the reliance on NWF guarantees could be reduced or eliminated altogether.

Collaborate with metro mayors to support planning and delivery of infrastructure projects

The launch of the UK Strategic Public Investment Forum is a welcome and timely step forward. It clearly defines the roles and responsibilities of each public finance institution and outlines how they can work together with government departments. This clarity is much needed, particularly in response to repeated calls from financial institutions for greater distinction between the functions of the NWF and GB Energy.

As the forum involves, it should consider how it could engage with metro mayors on large scale regional infrastructure projects, particularly given that one of the NWF's two core objectives is to support regional and local economic growth. Many metro mayors already have ambitious and well-developed plans for major regional infrastructure. Their involvement could help ensure a more integrated and strategic approach to project delivery – spanning the full supply chain, from housing and grid connections to cabling and port infrastructure for projects like offshore wind.

Policy recommendations

- **Redesign NWF guarantees to include make-whole provisions:** The NWF should offer periodic payments to better align with insurers' regulatory requirements.
- **Ensure targeted investment:** The NWF should target investments where its capital can add the most value by derisking projects to crowd in private investment rather than compete with it.
- **Develop the UK's infrastructure and regional investment pipeline:** The National Infrastructure and Service Transformation Authority (NISTA) should work with the NWF, GB Energy and metro mayors to develop the UK's infrastructure pipeline.
- **Create aggregation vehicles to scale investment:** The NWF should support the creation of aggregation vehicles to pool fragmented assets like heat pumps into larger, investible portfolios.
- **Collaborate with metro mayors to support planning and delivery of projects:** The Strategic Public Investment Forum should engage metro mayors to enhance coordination and effectiveness in regional infrastructure planning and delivery.

Recommendation 2:
Empower regions of the UK to facilitate investment

Regions across the UK have a crucial role to play in the net zero transition but need greater support and empowerment to maximise their impact

Context

The next phase of the UK's net zero transition will need to see a significant increase in the roll out of infrastructure across the UK. Local authorities and devolved administrations will play a crucial role in ensuring that investment is aligned with their specific regional needs and opportunities. Local Area Energy Planning (LAEP) provides a crucial foundation by setting out clear, evidence-based roadmaps for decarbonisation at the local level, identifying the infrastructure, flexibility, and generation assets needed to achieve net zero outcomes. By formalising LAEPs across all local authorities and embedding them into wider spatial and investment planning, regions can develop investible project pipelines aligned with national energy and climate goals.

However, strong plans alone are not sufficient. Local and mayoral authorities must be equipped to attract greater private sector investment if the UK is to deliver its transition. Building regional investment capabilities—through technical expertise, blended finance vehicles, and strategic partnerships with the private sector—is essential.

Overcoming barriers to investment

Endorse LAEPs as the national model for place-based decarbonisation and integrate them into national planning and energy network governance

Producing a LEAP can be a fundamental starting point for local authorities to set out a structured approach to their regional decarbonisation journey. When delivered collaboratively with regional stakeholders, a LAEP delivers a fully costed, spatial plan that identifies the change needed to the local energy system and built environment, detailing 'what, where, when and by whom'[7]. These plans can guide the transition to net zero energy systems at a local level and can help to structure projects with investment needs planned from the outset.

Given the commonalities for the decarbonisation of energy infrastructure across the UK, there is a significant opportunity for LAEPs to identify a substantial pipeline of transition projects. However, LAEPs have not yet been universally adopted across the UK meaning that many regions are missing an essential tool for planning and executing energy transition projects. LAEPs will be a fundamental building block for Regional Energy Strategic Plans (RESP) that will be central to delivering the Clean Power 2030 Action Plan. To ensure plans can be delivered effectively they should be designed from the outset with viability for development and financing approach in mind.

Government should encourage the roll out of LAEPs across the UK by establishing them as the nationally endorsed model for place-based decarbonisation for all local authorities and providing access to technical support and funding that supports their development. Following development of LAEPs, local authorities will also need funding to undertake the next stage of project development such as feasibility studies.

Local Area Energy Planning (LAEP) is a data-driven, locally led, and collaborative approach to identifying the most cost-effective path for an area to achieve net zero. It delivers a detailed, fully costed spatial plan—similar to an urban master plan—outlining necessary changes to local energy systems and the built environment.

7 Local Area Energy Plans - Energy Systems Catapult

Recommendation 2:
Empower regions of the UK to facilitate investment continued

Empower regions through devolution by enabling local authorities to raise funds to produce LAEPs, build capacity, and access development expenditure for priority projects
The highly centralised nature of the UK and England in particular, as recognised in the English Devolution White Paper led by Ministry of Housing, Communities and Local Government (MHCLG), provides a significant structural barrier to growth and delivering on key priorities such as the Clean Energy Superpower mission. At present, powers vary significantly between tiers of local authorities. For example, small district councils can sometimes possess greater decision-making authority than larger combined authorities in critical areas such as planning[8]. To address this imbalance, clear roles and responsibilities need to be defined across each of the Foundation, Mayoral and Established Strategic Authorities levels.

Devolution should be accompanied by additional support and resource, including:

- Enhanced fiscal powers including direct control over allocation of funding from single settlements to support clean power programmes.
- Local energy planning capacity to build skills and institutional expertise to support implementation of LAEPs and RESPs. This should include a specific project development funding pot that local authorities can use to assess feasibility of energy projects.
- Supportive enabling policies including streamlined planning and permitting to enable greater control over energy project approval and grid modernisation to enable regional electrification.

Establish a regional brokerage to increase connection between investors and regions
There is a significant disconnect in both communication and expertise between local and regional governments and the investor community. This is particularly evident outside London, where local authorities often have limited experience engaging with investors. As a result, many local authorities may struggle to effectively position and present investment opportunities to the right audiences, which can hinder their ability to match viable projects with appropriate investors.

To overcome this challenge, a national intermediary could act as a bridge between public sector entities and institutional investors. This intermediary would be tasked with translating local investment opportunities into commercially attractive, viable propositions that align with investor priorities. The Office for Investment (OFI) could serve as this national broker, facilitating the identification of high-potential projects in cities and regions and connecting them with suitable investors. By enhancing project visibility, providing strategic guidance and coordinating efforts across regions, the OFI could help ensure that promising opportunities attract the necessary capital to move forward. This proactive engagement would foster trust, draw in capital, and ultimately accelerate investment in sectors where private investment to-date has been limited.

Policy recommendations

- **Endorse LAEPs as the national model for place-based decarbonisation and integrate them into national planning and energy network governance:** DESNZ should ensure all local authorities adopt LAEPs and integrate them into energy network governance and RESPs. MHCLG should make LAEPs mandatory in national planning policies to drive decarbonisation projects.
- **Empower regions through devolution by enabling local authorities to raise funds to produce LAEPs, build capacity, and access development expenditure for priority projects:** MHCLG should facilitate financial resource generation for LAEPs; DESNZ should support capacity building, GB Energy should fund feasibility assessments; and HMT, MHCLG, and DESNZ should incorporate net zero infrastructure funding within devolution deals.
- **Establish a regional brokerage to increase connection between investors and regions.** HMT should expand the Office for Investment remit to become regional broker between investors and regions across the UK.

8 English Devolution White Paper Explainer - CFGS

Recommendation 3:
Develop sectoral investment roadmaps to provide investor certainty

Sectoral investment roadmaps will provide much-needed strategic and policy certainty to unlock private sector investment

Context

As the UK continues to make progress towards its 2050 net zero target, building upon its 50% emissions reduction since 1990[9], the path to further emissions reductions will become increasingly complex. Early progress was largely driven by progress towards decarbonising the power sector with the phase out of coal and the successful Contracts for Difference (CfD) policy mechanism leading to a large expansion in offshore wind capacity. The next phase will require deeper, systemic change across interconnected sectors of the economy. Key challenges include decarbonising supply chains, upgrading national energy infrastructure, and accelerating the deployment of a range of low-carbon technologies. These areas demand coordinated action and sustained investment.

The scale of the challenge means it is essential that the government provides clear strategic direction and policy certainty to unlock private sector investment. A recent Deloitte survey found that 97% of investors seek long-term, stable energy policies that extend beyond the parliamentary cycle. To build confidence and attract capital at scale, policy intervention should focus on expanding the pipeline of investable projects, removing barriers to investment, and creating an enabling environment for innovation and low-carbon infrastructure.

Overcoming barriers to investment

Develop structured sectoral investment roadmaps to provide policy certainty

To date, a number of technology-specific investment roadmaps have been published, however none have set out specifically how the Government will incentivise the private finance needed to deliver them. Producing a series of sectoral investment roadmaps that jointly form an economy-wide investment roadmap would present a holistic approach to scaling investment in the transition .

Sectoral investment roadmaps, which first assess the financing gap to deliver net zero in a specific sector (rather than for a given technology) and then detail the policy and regulatory interventions needed to unlock the required investment, should be embedded in the upcoming Carbon Budget Delivery Plan. They would provide a comprehensive, cross-economy strategy for crowding in the investment needed to drive growth and meet the UK's net zero objectives. Their development will require close collaboration between HM Treasury and DESNZ.

This approach would underpin the Carbon Budget Delivery Plan and deliver the following benefits:

- Provide a clear and regularly iterated investment plan, developed in partnership with industry, to deliver on the Government's growth mission and decarbonisation goals.
- Enable identification of investment gaps and opportunities to ensure that public investment, including via the NWF and GB Energy, is strategically targeted to achieve maximum impact and crowd in private investment.
- Establish open and impactful collaboration with investors and the private sector to bolster confidence and boost much-needed investment into the UK economy.

Develop tracking mechanisms for sectoral investment flows

A tracking mechanism should be established to assess actual investment flows, which would enable policymakers to gauge the effectiveness of their interventions and refine them as required to unlock the full investment needed. Reporting on progress should be aligned to Spending Reviews on a three-year basis and monitor key indicators such as infrastructure deployment, investment flows and outstanding gap and emissions reductions. Where significant financing gaps remain, DESNZ and HMT should engage with the private sector to assess barriers and solutions to scaling finance.

It is crucial that sectoral investment roadmaps recognise the distinct characteristics of different sources of private finance, particularly the contrast between short-term bank lending and long-term capital from institutional investors such as pension funds and insurers. This differentiation is key to ensuring roadmaps effectively mobilise the full range of private capital needed for the transition.

Producing a sectoral investment roadmap to support delivery of the Clean Power 2030 Action Plan should be a priority given electrification and low-carbon electricity supply will be critical to the UK's net zero ambitions. Considerable thinking has already been done on this which the government can build on, including work by the Transition Finance Council to develop a sectoral roadmap template and example roadmaps for priority sectors. and supporting efforts to increase UK pension funds' investments in UK assets.

Policy recommendations

- **Develop structured sectoral investment roadmaps to provide policy certainty:** DESNZ and HMT to lead cross-government development of sectoral investment roadmaps.
- **Develop tracking mechanisms for sectoral investment roadmaps:** DESNZ to create tracking mechanisms to understand investment flows for the low carbon transition and seek private sector engagement to overcome investment barriers.

9 UK first major economy to halve emissions - GOV.UK

Recommendation 4:
Address regulatory and structural barriers to unlock institutional investor capital

Evolving regulation to address structural barriers will enable institutional investors to scale up their role in the UK's transition to net zero

Context

A supportive regulatory environment that evolves to address structural barriers will be essential to unlocking the full potential of pension and insurance capital in driving the UK's transition to net zero.

The recent Pensions Investment Review identified a range of challenges with the UK pension sector, including the need for pension scheme consolidation, underinvestment in productive assets and historically low levels of domestic investment.

Addressing these challenges through targeted reform will be vital to mobilising long-term capital at the scale needed for sustainable growth.

Overcoming barriers to investment

Evolve the regulatory framework

Regulatory frameworks play a key part in shaping where investors from the pension and insurance industries can allocate capital. One of the most influential regimes in this space is Solvency UK, the post-Brexit overhaul of the EU's Solvency II regulation.

Despite recent reforms introduced under Solvency UK, the MA continues to act as a regulatory constraint, limiting the capacity of certain pension funds and insurers to invest in the UK's most productive assets. While the MA is designed to protect policyholders by requiring assets to demonstrate long-term, highly predictable cash flows, this criterion poses a challenge for many productive assets - particularly those in climate infrastructure and emerging technologies - which often lack the historical data needed to prove such certainty.

Recent consultations between regulators and industry have sought to address some of these challenges. The Prudential Regulation Authority (PRA) has proposed the Matching Adjustment Initiative Accelerator (MAIA) to reduce delays in deploying capital by allowing insurers to benefit from immediate recognition of the MA benefit, ahead of receiving full regulatory approval. This aims to streamline the process for investing in less liquid assets, which previously faced significant scrutiny and long approval timelines.

While the MAIA is a helpful step in accelerating investment in already MA-eligible assets, it does not address the more fundamental barrier: the long lead times and rigid requirements involved in making new asset classes MA-eligible.

Phoenix Group previously suggested that a MA Sandbox could be introduced – allowing for a more flexible approach to approving new assets as MA-eligible, based on projected rather than historical cash flows[10]. This would unlock significant private capital, reduce reliance on public funding for major national projects, and better align the regulatory environment with the country's economic and environmental objectives. Phoenix Group suggests that the PRA should continue to work in close partnership with industry to evolve the regulatory framework.

Encourage consolidation in UK pensions

The UK pension landscape is fractured, comprising c. 30,000 schemes, split between c.25,000 Defined Contribution (DC) schemes, c. 21,000 of which are micro schemes with fewer than 12 members, and c. 5,000 Defined Benefit (DB) schemes[11]. As a result, UK pension fund schemes are highly fragmented and relatively smaller in scale compared to global counterparts like Australia and Canada. This fragmentation leads to cost inefficiency and diseconomies of scale, with higher fund management fees and administration costs.

The UK pension scheme landscape would benefit from further consolidation into larger professionally managed funds. These funds would be able to invest in a wider range of assets including private markets, which can support higher returns.

10 The case for introducing a matching adjustment sandbox Phoenix Group
11 Occupational defined contribution landscape in the UK 2024 I The Pensions Regulator

Evolve the Value for Money Framework

Asset allocation trends in UK pension funds have historically favoured low-cost investments, often at the expense of opportunities with higher upfront costs but greater long-term value potential. To address this, the UK could evolve the Value for Money Framework to replicate the Australian model whereby value for money has been essentially codified as a legal duty for trustees to act always in the members' best financial interests. This interpretation of fiduciary duty by Australia has provided a clear mandate for trustees to pursue long-term value. By contrast, the UK's current approach, while directionally similar, lacks the same enforceable precision, which may limit the pace and scale of strategic decision making, particularly around investments that support long-term outcomes.

In Australia, their Value for Money Framework has been coupled with a performance test, applied by the regulator, which assesses investment outcomes against pre-determined benchmarks. Net benefit outcome is the principal measure used, measured simply as contributions and investment earnings, minus costs, fees, taxes and premiums that may apply to the savings account. By implementing this measure in the UK, trustees would likely increase allocation to private markets where returns have generally been higher. Currently, only 6% of the UK's c.£3 trillion pension assets are invested in productive assets such as private equity and alternatives[12]. This is significantly lower than international peers such as Australian Superannuation Funds, which allocate 20% to alternatives (including infrastructure and unlisted property), and is cited as a key driver of annual returns of 7.4% over the last decade[13].

12 Pensions Policy Institute - Pension scheme assets - how they are invested and how and why they change over time
13 Statement responding to ASIC's discussion paper on the dynamics between public and private markets - ASFA

Recommendation 4:
Address regulatory and structural barriers to unlock institutional investor capital continued

Case study: Lessons from the Australian and Canadian pension markets

Pension funds in both Canada and Australia outperform relative to their population size. For example, Australian superannuation funds are growing around 13% a year and have grown over 500% in the last two decades[14].

A large part of this growth has been due to successfully mobilising large-scale investment in private markets including infrastructure, with an allocation range from 20% to 38% from superannuation funds[15]. This has contributed to stable, long-term returns that have outperformed comparable markets such as the UK.

There are number of key takeaways for the UK as it looks to evolve its own pensions market following the Pensions Investment Review:

- **Scale:** Larger funds have greater capacity to make direct investment, reducing reliance on intermediaries who add to investment origination cost.
- **Flexibility:** Incentives from each country's regulators enable funds to invest in a diverse range of assets. The largest Canadian public sector pension funds, the so-called Maple 8 that manage £1.1 trillion of assets, have been consolidated into large professionally managed funds leading to diverse investment in infrastructure and private equity[16].
- **Partnership:** Strong collaboration between pension funds and public investment bodies has facilitated high-impact investment in domestic infrastructure with a clear pipeline for investment identified by the government. For example, the Australian Government is committed to a 10-year, c.$120 billion infrastructure investment pipeline giving greater certainty to investors[17].

14 Connecting Australia, the US and a two trillion-dollar opportunity I Macquarie Group
15 Quarterly superannuation statistics I APRA
16 Canadian pensions: a model for the UK? I ICAEW
17 Australian Government - Infrastructure Investment Program

Recommendation 4:

Address regulatory and structural barriers to unlock institutional investor capital continued

Incentivise domestic investment

UK pension funds' allocation to domestic equities is amongst the lowest of developed pensions markets at 4.4%. This is half of what it was 25 years ago and among the lowest of any developed pension system around the world with only Canada, the Netherlands, and Norway having a lower allocation[18]. This allocation away from UK equities has been partly driven by global mandates becoming cheaper over time coupled with strong investment performance from regions such as the US[19].

In addition, the 0.5% Stamp Duty Reserve Tax (SDRT) levied on the purchase of UK-listed companies can act as a disincentive to invest in the UK relative to other markets. This is the second highest in the world behind only Ireland (1%), whilst other large developed markets such as the US and Germany do not charge any tax at all[20]. Developed pension markets reduce the effective tax rate on domestic shares, with Australia offering a tax credit on dividend payments through its franking credit.

18 Delivering Over £100bn of New Capital into the UK Economy Every Year - Capital Markets of Tomorrow
19 Pension fund investment and the UK economy - Department for Work and Pensions
20 Stamp out stamp duty - Articles - News & Insights - Peel Hunt

Support the delivery of the Mansion House Accord

In 2023, nine of the UK's largest defined contribution (DC) pension providers—including Aviva, Scottish Widows, Legal & General, Aegon, Phoenix, Nest, Smart Pension, M&G, and Mercer—signed the Mansion House Compact. This voluntary, industry-led initiative aimed to allocate at least 5% of DC default funds to unlisted equities by 2030, seeking to unlock new capital to support high-growth UK companies and enhance returns for pension savers[21].

Building upon this foundation, the Mansion House Accord was launched on 13 May 2025, expanding the commitment to include 17 major UK workplace pension providers. Under the Accord, these providers pledged to invest at least 10% of their DC default funds in private market assets by 2030, with a minimum of 5% directed toward UK-based investments. This initiative, supported by the UK government, aims to stimulate economic growth by channelling pension savings into infrastructure, clean energy, and innovative startups[22].

However, the Accord is heavily conditional. The commitment to increase investment in the UK depends on the availability of investable opportunities. Pension funds can only deliver on their commitments if there is a strong pipeline of investment grade assets. That's why accelerating project development and ensuring the UK's regulatory framework supports investment in the most productive UK assets is important. Without these foundations, the Accord's ambitions may fall short.

Equally important are initiatives like planning reform through the Planning and Infrastructure Bill, along with clear and consistent political signalling in support of infrastructure and development. These measures are essential to give investors the confidence and certainty needed to deploy capital into the UK economy.

21 Mansion House 2023 - GOV.UK
22 Pension Industry Unites on Mansion House Accord to Boost Savers' Outcomes and UK Growth

Policy recommendations

- **Evolve the regulatory framework:** The PRA should continue to work in close partnership with industry to keep evolving the regulatory framework in support of unlocking greater investment in climate solutions and other productive assets.
- **Encourage consolidation in UK Pensions:** HMT and Department for Work and Pensions (DWP) should develop mechanisms to consolidate and scale up pension schemes, including through setting a minimum operation size threshold for defaults and streamlining the bulk transfer process in contract-based schemes.
- **Evolve the Value for Money Framework:** DWP should articulate the need to focus on value rather than cost to clearly set expectations for investing in growth assets rather than purely pursuing lower fees.
- **Incentivise domestic investment:** HMT should consider lowering stamp duty on UK shares to a more competitive rate in line with other developed markets and explore targeted tax incentives for pension funds that allocate a significant portion of their assets to UK infrastructure.
- **Develop a pension reform roadmap:** DWP should outline a policy and regulatory reform roadmap, informed by recent consultations undertaken by the Pensions Investment Review.
- **Support delivery of the Mansion House Accord:** Government needs to support efforts to increase the availability of investible productive asset opportunities.

About us

Our vision is to be the UK's leading retirement savings and income business. We offer a broad range of savings and retirement income products to support people across all stages of their savings life cycle from 18 to 80+, through our family of brands.

Our business

£292bn
total assets under administration

c.7,000
colleagues

c.12m
customers

c.£530m
annual dividend paid to shareholders

FTSE 100
and FTSE All World

Our family of brands

Standard Life
Part of Phoenix Group

Standard Life has been trusted to look after people's life savings and retirement needs for 200 years.

SunLife
Part of Phoenix Group

SunLife's straightforward and affordable financial products and services are designed to meet the needs of the over 50s.

PHOENIX LIFE
Part of Phoenix Group

Phoenix Life focuses on providing a secure home for policies, brought together from a number of life companies over the years.

ReAssure
Part of Phoenix Group

ReAssure looks after customers across a broad range of retirement, investment and protection products.

ESG ratings and award recognition

Ratings

A-
leadership position on climate

AAA
rated as a leader by MSCI

Low risk
rated as low risk by Sustainalytics

Awards

Professional Pensions UK Pensions Awards
Standard Life awarded DC Pension Provider of the Year

Pensions Age Awards
Standard Life awarded Pensions Provider of the Year

REDI Awards
Phoenix Group placed in the top 8 in the FTSE 100 on the corporate Religious, Equity, Diversity & Inclusion monitor ('REDI')

Phoenix

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Registered address
Phoenix Group Holdings plc
20 Old Bailey
London
England EC4M 7AN

Registered Number 11606773

www.thephoenixgroup.com