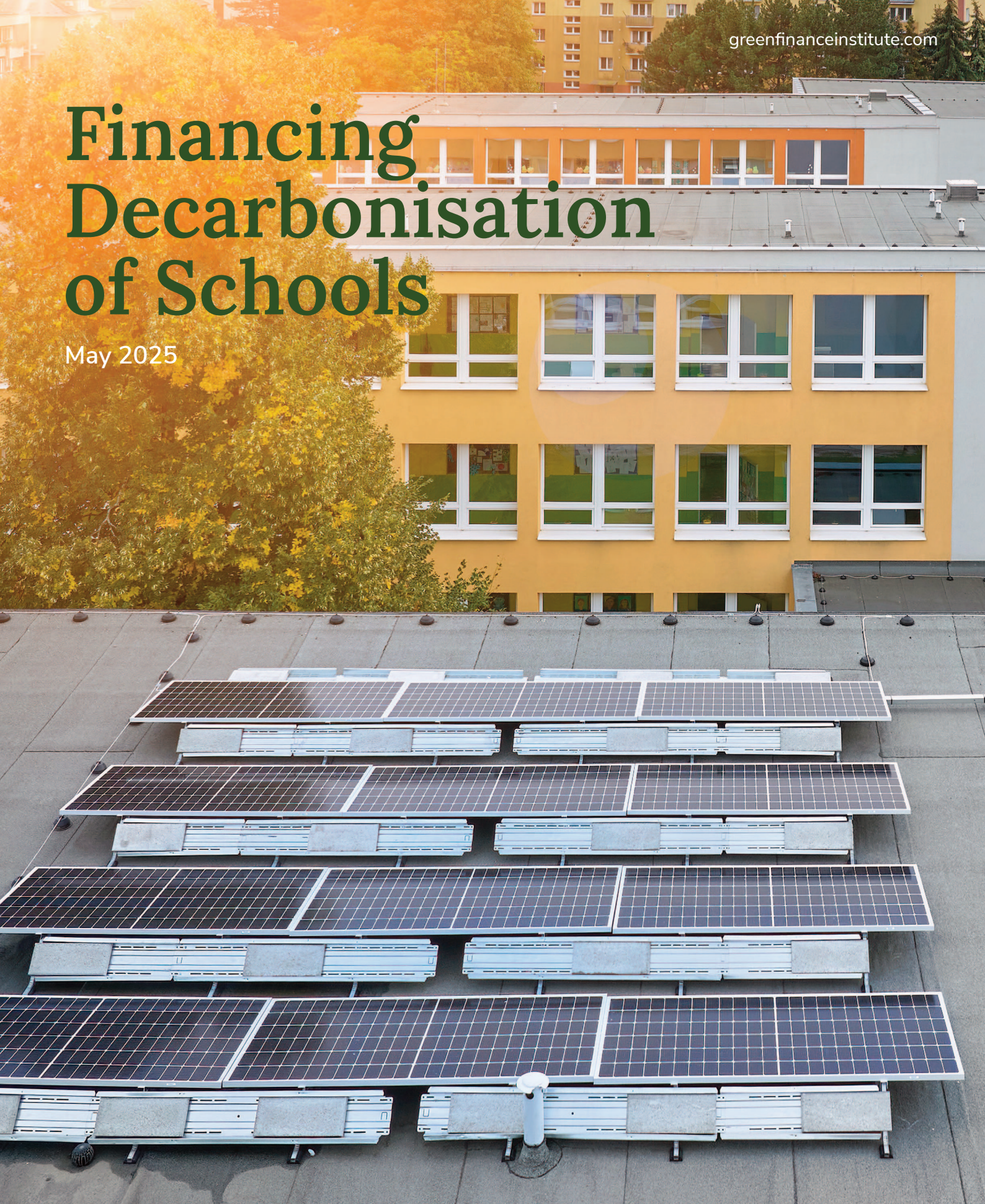


Financing Decarbonisation of Schools

May 2025





1 Executive Summary

The education estate's primary objective is to provide safe, healthy and productive learning environments for the UK's children, yet it is also responsible for 37% of the public sector's greenhouse gas emissions¹. Against a backdrop of a rapidly changing climate and the Department for Education's (DfE) goal to reduce school emissions by 75% by 2037², a coordinated cross-sector effort is required to support schools to decarbonise.

The estimated investment needed to decarbonise UK primary and secondary schools is £16.3bn³. Current government funding available to schools through grant schemes and Local Authorities (LAs) is insufficient to meet the investment challenge – private finance must play a role. Used more strategically, public funds could catalyse the private investment needed. However, deploying private capital into the school estate is hindered by restrictive policies designed to prevent schools from incurring unmanageable debt.

The Green Finance Institute (GFI) has partnered with Ashden's Let's Go Zero campaign, the national campaign for all schools, colleges and nurseries to be zero carbon by 2030. This partnership is exploring the current funding landscape for schools, assessing existing financial solutions and co-designing new innovative mechanisms to mobilise capital toward decarbonising schools. In order to develop the enabling conditions that would unlock the required investment, the GFI convened leading thinkers from across the education, finance, and energy sectors, as well as local and central government. This report outlines the key findings from those discussions and the analysis that underpinned them – and offers innovative financial solutions to decarbonise the school estates.

¹ (Environmental Audit Committee, 2023)

² (LocatED, Net Zero Accelerator, 2024)

³ (Teach the Future, 2023)

⁴ (National Audit Office, 2025)

Barriers to decarbonisation

- **High capital cost:** Decarbonising UK schools is estimated to cost £16.3bn and is unrealistic in the context of current school funding. The challenge of securing such public investment is compounded by the current £13.8bn condition backlog which traditionally takes priority over decarbonisation works.
- **Limited public budget:** This investment cannot be borne by direct public expenditure alone. Furthermore, with respect to public finance institutions, the National Wealth Fund (NWF) is currently unable to lend directly to schools to support with upfront costs.
- **Private finance policy:** Schools borrowing policy restrictions and high due diligence costs hinders private capital flow into school decarbonisation through direct lending to schools or to other delivery counterparties.
- **Varying payback periods:** Different retrofit technologies generate varying energy savings and therefore have varying payback periods making them difficult to finance as a package.
- **Unclear government strategy:** Without granular formal commitments or strategic plans for decarbonising the school estate, financial institutions and delivery partners are hesitant to commit resources, hindering the market's readiness for widespread decarbonisation measures.

Capitalising on opportunities

With the DfE estimating the spend on energy will be over £1.7bn in this financial year⁵, a coordinated decarbonisation plan for the education estate alleviates financial pressures and allows for reinvestment into education.

Decarbonising the school estate not only meets the emissions reduction targets set by the DfE and wider government, but also presents a significant opportunity to achieve the Department

for Energy Security and Net Zero's (DESNZ) target of 95% clean energy production by 2030. For instance, underutilised rooftop space can help achieve the targeted increase in solar power capacity from 15GW to 47GW by 2030⁶, providing multiple benefits to schools such as decreased energy bills and an opportunity to export back to the grid for additional income. This initiative extends into the community where schools can play a key role in delivering the Local Power Plan. In March 2025, Great British Energy (GBE) announced their first deal focussing on solar installation in the public sector⁷. Government entities like GBE and the NWF can go further to utilise their capital catalytically to lead public sector decarbonisation by example.

The education sector can lead public sector decarbonisation by example – solutions that work within the context of education could be transferable to the health and defence sectors, amongst others.

Recommendations

Targeting public funds to crowd in private finance as efficiently as possible will be essential to meeting the investment challenge. There are incrementalist, but also transformational and innovative opportunities that will require the public and private sector to collaborate to unlock the opportunity.

- **Incremental improvement opportunities:**
 - **Public funding**
 - The DfE should publish a detailed decarbonisation plan for the sector to provide clarity to the market, readying financial and delivery institutions to support. The DfE's **Net Zero Accelerator (NZA) Programme** is an established government-led school decarbonisation programme, which could provide a roadmap to scale that leverages in private sector support in both delivery and finance.

⁵ (LocatED, NET ZERO ACCELERATOR: PRE MARKET ENGAGEMENT – DRAFT INVITATION TO TENDER AND CONTRACT DOCUMENTS FOR COMMENT, 2025)

⁶ (National Energy System Operator (NESO), 2024)

⁷ (Department for Energy Security and Net Zero, 2025)

⁸ (RT HON RACHEL REEVES MP, 2025)

⁹ (HM Treasury, 2024)

- As indicated in the Chancellor's latest strategic steer to the NWF, Local Authorities should work in collaboration with the NWF and act as aggregators of different types of funding, such as grants and private finance to deliver school decarbonisation⁸. Some LAs have developed their own schemes to deliver and finance school decarbonisation; this report features case studies on loan schemes and energy performance contracting, which could be replicated.
- Use **grants** in a targeted way to address technologies which private finance is unable to support, potentially repurposing them to catalyse private finance. This can be done through repurposing them as guarantees or subsidies, or through incorporating them into a 'loss making financial transaction' to be made through the NWF, as defined in the Financial Transaction Control Framework published by HM Treasury⁹.
- o **Private funding**
 - Standardise documentation, such as developing a standard form Power Purchase Agreement (PPA) for schools, and explore options to alleviate the cost of due diligence to **allow private organisations and community energy groups** to access finance to deliver decarbonisation works for schools.
 - Add technologies associated with retrofit to the list of assets exempt from the DfE's school borrowing policy to allow **private financial institutions** to support with the upfront cost. This makes the most current commercial sense with mature technologies such as solar, LEDs and building management systems, where there is confidence in energy savings generated to repay a loan.
- **Innovative financial solutions:**
 - o The current borrowing framework for schools can prevent prudent investment into decarbonising schools¹⁰. Subject to policy changes that enables lending to schools, designing and delivering a **loan scheme** would help manage the upfront cost of retrofit. The NWF could also play a role in catalysing private finance to support the investment challenge through the provision of guarantees.
 - o Structure and deliver a **Schools Green Transition Fund (SGTF)**, to be delivered through the NWF, which leverages the strength of the government covenant in its school funding grants to raise significant upfront private capital at a low-cost. In particular, the investment case for deploying mature, proven technologies at scale is compelling. If the Government were to install solar panels across the school estate over the next seven years, the SGTF would generate a surplus of over £1bn by 2035 and over £2bn by 2045¹¹. This surplus would free up capital within the DfE to look at funding retrofit measures with longer paybacks such as fabric improvements and heat decarbonisation.
 - o Carbon credits issuers, in collaboration with the DfE, to design and deliver an approved methodology to enable the sale of **carbon credits** generated by emissions reductions from school retrofit. If an initial pilot proves to be successful, this could scale to alleviate funding pressures and tackle the investment challenge.

¹⁰ Under current HM Treasury accounting rules, school exposure is classified as public debt, necessitating the DfE to hold full collateral against exposure in case of a default. Consequently, schools must obtain Secretary of State approval to access private finance, bar a few exceptions for assets deemed 'low-value'. Please see Annex 4 for further detail on the borrowing policy for schools.

¹¹ Initial modelling based on assumptions from Barker Associates



- o Structure a **Property Linked Finance (PLF)** solution for the school estate, identifying key policy levers to unlock delivery. Private commercial finance appetite for retrofit, aside from the specific circumstances of lending to schools, does not extend to technologies with longer payback periods. Therefore, new lending approaches are necessary. While enabling legislation would be required, the long-term nature of PLF could address barriers relating to retrofit technologies with longer payback periods.
- o **As-a-Service (aaS)** is an existing solution to deliver and finance retrofit for social housing where repayment for the upfront cost is channelled through energy bills. This could be deployed in schools through modelling and structuring an aaS solution in collaboration with energy service companies to understand how this could work within schools' existing energy bills payments.

Next Steps

A retrofit requires various technologies – each generate energy savings which can repay the upfront cost of the technology at different rates. In the immediate term, Government could create speed to market by capturing immediate private sector appetite and expertise for mature technologies (solar, LED, building management systems, batteries) through a loan scheme and/or an SGTF. Concurrently, the market should work with government to create innovative solutions to address technologies with longer payback times, such as heat decarbonisation and fabric improvements, alongside establishing a supportive policy and legislative framework for mechanisms like PLF, aaS, and flexible, blended iterations of the loan scheme and SGTF.

Public money is currently being used less efficiently than it could be – these funds could strategically catalyse the private investment needed. However, deploying private capital into the school estate is hindered by restrictive policies designed to prevent schools from incurring unmanageable debt, resulting from HM Treasury accounting rules of school exposure. Existing solutions can be scaled but support to deliver more innovative solutions will unlock the significant investment needed to capture this opportunity.

If you are interested in learning more, please get in touch with the GFI.



2 The Funding Landscape

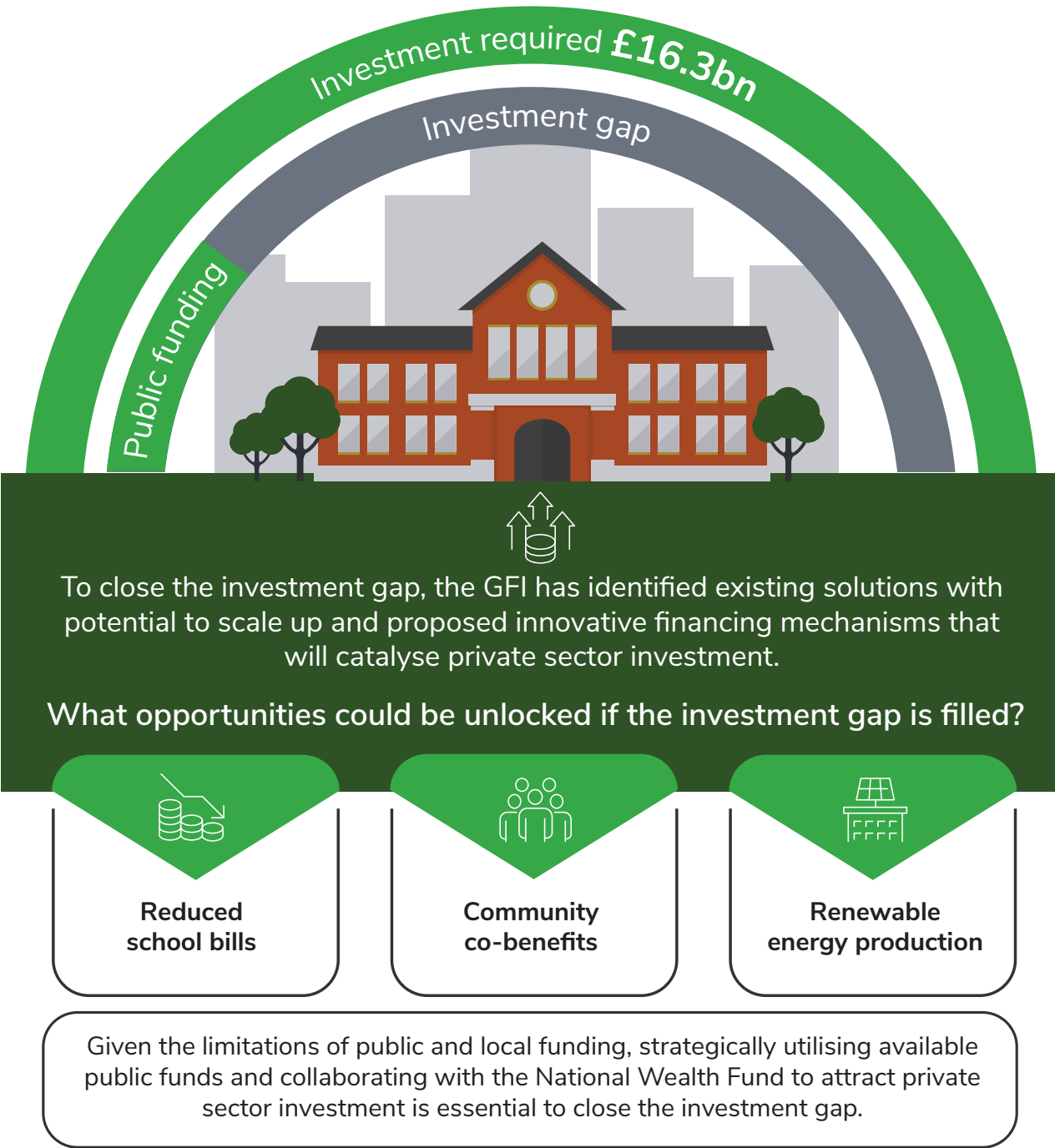
The education sector in the UK is responsible for 37% of public sector greenhouse gas emissions. The DfE has committed to reducing school emissions by 75% by 2037. This commitment represents a funding challenge exceeding £16.3bn¹², which cannot be met by public funds alone.

While additional financial support is available through grant schemes such as the Public Sector Decarbonisation Scheme (PSDS), these do not bridge the capital gap. Based on historical funding levels allocated to schools through PSDS, only £1bn is projected to fund school decarbonisation projects until 2030. Furthermore, LAs face capital and resource constraints that hinder effective project delivery. Additionally, the National Wealth Fund is unable to lend directly to schools, leaving a significant investment gap that necessitates private finance support.

Policy on borrowing by schools is intended to prevent schools from incurring unmanageable debt but is having unintended consequences of stopping even prudent investment. Only by leveraging public funds catalytically and enabling private finance participation, can investment in decarbonisation deliver value for money to taxpayers.

¹² (Teach the Future, 2023)

According to Teach the Future’s 2023 report, **£16.3 billion** is required to transition the primary and secondary school estate to net-zero within the UK



2.1. An Introduction to Government Funding

To understand how to attract private investment to fill the investment gap, it is important to understand how school funding is directed and distributed – this is dependent on the type of school. The public education sector in England comprises two main groups of schools:

- **Maintained schools** are funded and run by local authorities;
- **Academies** receive funding directly from the government and are run by Academy Trusts.

Funding and decision making are primarily channeled through entities known as Responsible Bodies, which include **LAs** and **Multi Academy Trusts (MATs)**.

	Maintained Schools	Academies
Responsible Body	Local Authority	Single or Multi Academy Trust
Funding	Routed through the LA	Received directly from Government
24,453 schools in England as of 2024 ¹³	47%	44%

Responsible bodies have the opportunity to pool capital funding and grants, allowing them to allocate resources to schools with greater needs or to align potential retrofit investments with condition improvements, thereby enhancing the overall impact of the investment.

The remaining 9% of schools are independent schools, which are out of scope for this analysis given their different funding structure and their ability to self-govern.¹⁴ The difference in funding routes and decision makers leads to a fragmented landscape, and only serves to heighten barriers to investment.

Maintained schools and academies receive two types of funding – revenue and capital.

Revenue Funding	Capital Funding
Every school receives the DfE General Annual Grant (GAG), which is a form of revenue funding determined by the number of pupils enrolled, among other factors.	There are different types of capital funding available, with allocations dependent on the type of school and its responsible body. School Condition Allocation (SCA) is directly allocated by the government to eligible responsible bodies such as LAs and MATs with 5 or more schools. The Condition Improvement Fund (CIF) is available to schools ineligible for SCA.
Purpose: day-to-day operational costs of a school including teacher salaries, energy bills, educational materials and minor maintenance expenses.	Purpose: capital expenditure, usually intended to ensure school buildings remain safe and operational.

¹³ Department for Education, 2024)

¹⁴ (Department for Education, 2024)

Investment into retrofit and decarbonisation falls under capital funding; however, it is widely acknowledged that the amount received by schools is insufficient for condition improvement and retrofit. The latest capital funding figures from the DfE, which show the largest allocation of capital funding to date, shows that a school receives an average of £90.6k per annum¹⁵. With installation of solar alone on the average primary school in England costing £53k, and £164k for a secondary school, there is a material funding gap at a school level to deliver decarbonisation measures¹⁶. Combining retrofit with other condition improvements, for example installing solar while a school roof is being repaired, offers an opportunity to streamline costs and time for decarbonisation measures.

2.1.1. Public Sector Funding

Other public sector funding/sources of finance exist which could be deployed to support school decarbonisation, include:

- The Net Zero Accelerator (NZA) programme run by LocatED, an arm's length body of the DfE
- Local authority (LA) schemes
- Grant schemes
- The National Wealth Fund

2.1.1.1. The Net Zero Accelerator (NZA) Programme

NZA is a programme delivered by LocatED, an arms-length body of the DfE. The vision for the NZA is to create a service that funds and delivers decarbonisation initiatives across the education estate. Although still in its early stages, the aim is to provide responsible bodies with a low burden service to address the decarbonisation challenge, whilst reducing running costs and improving condition. Please see Annex 1 for further information on the NZA programme.

The NZA has been funded via capital grants thus far, including receiving a grant from Great British Energy for solar installation¹⁷, and the scope for future phases of the programme depends on the success of the previous phase. This limits the speed and capacity of the programme, alongside the ability to make broader strategic commitments.

Acknowledging HM Treasury's view that financial transactions need to represent good value for public money, resulting in a pivot away from grants, there is an opportunity to explore financial mechanisms to support the scaling of the programme¹⁸.

The NZA programme has been well received by the market and presents an opportunity for the DfE and government to lead public sector decarbonisation by example. A formal commitment and a comprehensive funding strategy from DfE and other relevant departments for decarbonising the school estate, extending beyond reliance on capital grants alone, can mobilise the value chain and create a scalable market. Acknowledging the need for private finance support, this market would be conducive to a blended financial solution, leveraging private sector interest where feasible, utilising public funds and the NWF balance sheet innovatively to address the investment gap. Potential examples of financial mechanisms that could be explored are detailed in Section 3.

¹⁵ (Department for Education, 2024), average capital funding figure calculated from all schools eligible for SCA in 2024-25

¹⁶ (Barker Associates, 2025)

¹⁷ (Department for Energy Security and Net Zero, 2025)

¹⁸ (HM Treasury, 2024)



2.1.1.2. Local Authorities

LA services to schools vary by school type, size, the scope of the authorities' activities and resources. The DfE provides annual condition funding to the council for conducting larger scale capital projects, with funding for revenue activities (e.g. maintenance), provided directly to the school. Academies, however, typically lease land and buildings from the council and receive direct government funding, making them independent of council services.

This leads to fragmentation and limited influence over schools due to funding, capacity, and skills gaps at the LA level, hindering large-scale decarbonisation efforts. Although the DfE has committed to reducing carbon emissions by 75% by 2037, there are no government mandates for LAs to reduce school emissions, so their current focus is on decarbonising their complete building portfolio, of which schools are only a part, meaning resources and appetite are diluted. Decarbonising schools presents a good place to

start and build momentum, providing an opportunity to increase local power generation, invest in the local supply chain and economy alongside creating better learning environments. LAs can offer additional services like energy procurement to achieve economies of scale and other services based on resource availability and school interest. Across England, larger MATs are also starting to provide these services to their schools.

Additionally, LAs can offer loans to schools under the DfE's borrowing framework allowing some LAs to run schemes to assist with the delivery and finance of school decarbonisation within their jurisdictions. Please see two case studies below alongside Annex 2 for key considerations for replicability of each scheme.

CASE STUDY 1:

Oxfordshire County Council – Schools Energy Efficiency Loan Scheme

Oxfordshire County Council (OCC) has established a scheme promoting energy efficiency in schools through its Action on Carbon and Energy in Schools (ACES) programme. The programme is dedicated to assisting schools in Oxfordshire with implementing energy saving measures, offering a range of support services, including advice through a dedicated helpdesk.

Building on the support provided by ACES and to put maintained schools on the pathway to decarbonisation, OCC has established the Schools Energy Efficiency Loan Scheme, which offers interest-free loans to county-maintained schools for financing energy efficiency measures. Launched in 2022, the pilot Energy Efficiency Recycling scheme of £800,000 has served 15 schools, with a subsequent phase being added amounting to a further £800,000. The success of this pilot has led to further funding from the council budget for another round of the scheme. While schools are responsible for delivering the projects, OCC must sign off on the proposals as a quality control mechanism, ensuring that the initiatives meet the required standards, energy and carbon savings.

Application Criteria

- Schools can apply for up to £70,000.
- Payback maximum 11 to 14 years, based on technology. This extended payback period would allow schools to release financial benefits while repaying the loan. Repayments start 12 months after commissioning.
- Two measures are currently eligible – LED lighting and / or solar. Battery storage can be installed alongside solar.

As this was a pilot scheme, applications were assessed on a first-come, first-served basis.

CASE STUDY 2:

Cambridgeshire County Council Schools Energy Programme

In 2014, Cambridgeshire County Council (CCC) launched the Schools Energy Programme. Since its inception, CCC has collaborated with 69 schools across the county, investing over £17 million in energy efficiency and generation projects. These initiatives have reduced carbon emissions by approximately 2,270 tonnes annually and enhanced the quality of school buildings. The programme addresses various retrofit technologies, including traditional energy efficiency measures such as solar, LED lighting, and building management systems. Additionally, it involves replacing outdated boilers with newer, more efficient or biomass systems.

The projects are executed through Energy Performance Contracts (EPC), where the contractor guarantees the performance of the energy-saving measures. Any shortfall in performance due to design or installation faults is covered by the contractor. CCC provides these services to both council-maintained schools and academies, with tailored arrangements for each. The financing solution has been designed to address the challenge that schools often lack the upfront capital to fund retrofit projects. For maintained schools, the EPC is funded by a loan, typically over 15 years. The loan repayments are structured to be less than the annual bill savings, ensuring affordability. Academies enter into a Managed Services Agreement (MSA), leasing equipment from CCC for around 15 years, with an option to purchase the equipment at a pre-agreed residual value at the end of the term. In both cases, interest on the capital is charged at public sector rates and can be staggered to improve cash flow in the early years of the project¹⁹.

¹⁹ (Cambridgeshire County Council, 2025)

LAs are key counterparties – they can assist with funding and delivering school decarbonisation through schemes such as those led by Oxfordshire and Cambridgeshire County Councils, accessing and aggregating different types of funding. LAs are able to pool multiple sources of funding including their own capital programme, Public Works Loan Board (PWLb) borrowing, Community Municipal Investments (CMIs), PSDS grants, DfE capital funding and borrowing and accessing advisory services from the NWF through their Local Advisory Service. Whilst acknowledging the general capital gap, the ability to blend these pots creates an opportunity for more impact. Furthermore, the NWF could support LAs with the delivery of school decarbonisation programmes through their local authority lending and advisory capacities. See Annex 2 for further detail on barriers experienced by LAs and incremental recommendations on how these could be overcome to achieve scale.

2.1.1.3. Grant Schemes

Grants are essential to catalyse markets where private finance appetite is low. In this context, grants are useful to support heat decarbonisation due to the longer payback periods and the immaturity of the technology. PSDS aims to tackle this challenge, offering grants to public sector organisations to assist with heat decarbonisation.

The simplest way to fill the investment gap would be to increase public grant funding, but acknowledging the current fiscal environment, this is unlikely. Therefore, the role of grants within the investment challenge could be reconsidered to focus on retrofit technologies with longer payback periods and better leverage private investment. Repurposing grants as catalytic capital through innovative uses such as guarantees, tax incentives, and insurance, amongst others, offers better value for taxpayers. Please see Annex 3 for a more detailed explanation of the grant funding landscape and policy recommendations.

2.1.1.4. The National Wealth Fund

The National Wealth Fund (NWF) has £27.8bn of capital to deploy, working in partnership with the private sector and local government to support projects. Their mandate aims to crowd in private investment and offer additionality to drive growth across the UK. NWF are wholly owned and backed by HM Treasury but operationally independent²⁰. NWF services the private sector through a variety of products including equity, debt and guarantees. They also support local government through advisory and lending services.

The NWF is currently unable to lend directly to schools, and an Act of Parliament would be required to change this. However, financing the decarbonisation of the school estate is aligned to the NWF mandate²¹, should the requisite policy be changed. Noting the NWF has minimum ticket sizes, a fund or programme could be set up to aggregate school projects.

The Financial Transactions Control Framework sets out how the Government intends public finance institutions, such as the NWF, to make growth-supporting investments and mandates them as the vehicle for financial transactions. With that in mind and as defined by the framework, the NWF can make 'loss-making financial transactions' through either the 'mandated activity' and 'service arm' models. These models indicate how governmental departments can work in collaboration with the NWF to invest²². In this context, grant money from DESNZ's PSDS or capital grants from within the DfE could be repurposed as a loss-making financial transaction, utilising the NWF as a vehicle for investment in decarbonisation of the school estate. The loss-making element will be covered by the grant aspect, which would correspond to retrofit technologies with longer payback periods such as heat decarbonisation and fabric improvements, but it also represents an opportunity for the NWF to deliver on its mandate of crowding in private investment to support on the more mature retrofit technologies such as solar and LED, where private finance appetite exists.

²⁰ (National Wealth Fund, 2025)

²¹ (RT HON RACHEL REEVES MP, 2025)

²² (HM Treasury, 2024)

2.1.2. Recommendations for Increased Impact

Given the constraints on the public purse and local authority finances, it is imperative that existing funds are utilised in an impactful manner and catalyse private finance to fill the investment gap. The below are recommendations for increased impact of existing public sector funding:

Recommendation	Audience
1. Utilise the NZA to leverage private sector appetite to support school decarbonisation: The NZA Programme presents an opportunity for the DfE and government to utilise a blended finance solution to leverage private sector appetite and financial support, to begin to substantially address the investment gap. See Section 3 for some example financial mechanisms.	DfE, DESNZ, Private Capital
2. Aggregate different funding types at LA level: LAs can pool different types of funding to offer schemes, much like OCC and CCC have done, to help deliver school decarbonisation within their jurisdictions.	LAs
3. Catalytic support from the NWF through supporting innovative solutions and repurposing grants into 'loss-making financial transactions': The NWF should look to support catalytically through some of the innovative solutions proposed in Section 3. Additionally, grants can be repurposed into loss-making financial transactions delivered through the NWF as defined in the latest Financial Transactions Control Framework published by HM Treasury. This represents an opportunity to crowd-in private finance as per the NWF mandate.	NWF
4. Removing the restriction on lending to schools: Upon support from HMG lifting lending restrictions to schools, the NWF could directly assist with the cost of retrofit at the school level by providing loans or leases to manage the upfront cost.	NWF and HMT



3 Private Finance for School Decarbonisation

Schools primarily rely on government funding and consequently, considering repayable private financing solutions is challenging as there is little or no headroom within existing budgets. Unlocking savings from retrofit measures is therefore critically important alongside utilising public funds to crowd in private finance to unlock this investment. Alternatively, organisations such as private delivery counterparties and community energy groups, may seek financing on behalf of schools. This approach while effective in unlocking private investment does introduce further complexities in relation to legal agreements to underpin offtake and service contracts.

There are some private organisations and community energy groups looking to support the delivery of decarbonisation works for schools, through leases and PPAs, within the operating boundaries of the current policy environment. However, these are not able to scale effectively because of borrowing policy and the high due diligence costs to access institutional funding.

This section explores:

- The existing private finance landscape including private delivery organisations and community energy groups, with recommendations for scale.
- Innovative financing mechanisms designed by the GFI that aim to mobilise private capital to close the investment gap.



3.1. Existing Private Finance Solutions

There are some companies in the market looking to deliver decarbonisation measures in schools and some have embedded financing arrangements. Three examples are:

- eEnergy provide a 'decarbonisation as a service' model, working with a variety of public and private organisations to help them implement measures at no upfront cost. They have track record of delivering solutions in schools, mainly for installing solar and LED and have signed a debt facility with NatWest to support decarbonisation contracts²³.
- Less is More Capital funds energy efficiency projects that deliver proven cost savings such as solar and LED. They have received funding from Santander and work with Barker Associates and EO Consulting to deliver the projects²⁴.
- Solar for Schools are a Community Benefit Society helping schools decarbonise with solar energy. They install solar at no upfront cost to the school who will repay over time through a PPA. Solar for Schools have raised funds through a variety of sources including issuing bonds through Ethex²⁵ and signing a £3m loan with Triodos Bank²⁶.

eEnergy

LESS IS MORE
CAPITAL

Barker

✓ solar for schools

²³ (eEnergy, 2024)

²⁴ (Less is More Capital, 2025)

²⁵ (Ethex, 2023)

²⁶ (Triodos Bank, 2024)

3.1.1. Community Energy

From 2017 to 2023, over £225m had been invested in community energy projects, contributing to approximately 398MW of renewable energy capacity – enough to power hundreds of thousands of homes²⁷. Installing solar on school buildings is a well-established practice and serves as a valuable initial project for community energy groups, presenting a viable business case, even without grant funding. The community energy groups typically take on responsibility for operating and maintaining the projects which is a positive in a school context, and the school repays the upfront cost through a PPA.

Community energy groups can access grant funding through pots such as the Community Energy Fund, but primary methods of financing include community share offers and bonds.

- **Share offers** typically provide investors with an annual return of around 4-5%, appealing to those willing to wait through longer payback periods of approximately 15-16 years. Payments are derived from the PPAs which also cover ongoing operation, maintenance, and administrative costs.
- **Bonds** are another option, generally offering higher returns to investors over a shorter period and ranking ahead of community shareholders in the repayment waterfall.

Organisations such as Ethex and Abundance Investment provide a platform to raise this type of financing. Please see a case study below on a recent raise by Bath and West Community Energy.

CASE STUDY 3:

Bath and West Community Energy Raise

Bath & West Community Energy (BWCE) is a long-established, highly experienced Community Benefit Society (CBS). It has built 14.49 MW of renewable energy projects to date - equivalent to the needs of 5,000 homes – funded by a mix of community share and bond offers, as well as project finance debt.

The BWCE portfolio includes 37 solar rooftop projects powering local schools at a discount to what they would otherwise pay their energy supplier and including a “never pay more than” rate. This results in reduced fuel bills and more predictability for the host schools. BWCE also owns and operates 5 ground mount solar arrays supplying the local grid. As with the rooftop projects, these projects have increased local jobs and retained value in the local economy that would otherwise drain out of the area in a typical commercial approach to developing renewable energy.

BWCE has allocated £430,000 to its community fund to date which has awarded over 111 grants supporting community action on carbon reduction and fuel poverty. This adds to BWCE's own initiatives in energy efficiency and retrofit services in the local area which all help its mission to build participation in the transition to net zero.

BWCE's latest offer was on the FCA-regulated Abundance Investment platform that specialises in investments that help grow the green and social economy. The offer successfully raised £1.2m to install a further 1.2 MW of rooftop solar schemes on schools by summer 2025.

²⁷ (Reeves, 2025)

Bath and West Community Energy Raise continued:

Key Terms

Issuer	Bath and West Community Energy
Interest	5.5% a year
Instrument	Bond
Security	Unsecured
Term	Minimum 5 years, with annual option to redeem after expiry of initial 5 year term
Funding Amount	£1.0m increased to £1.2m on the back of strong demand
Interest Paid	Interest accrues from date of investment and paid annually
Minimum Investment	£5
Fund-raising platform	Abundance Investment which managed the offer and handles all administration of the bonds from raise to repayment

There was an extensive due diligence process conducted by Abundance Investment including various sensitivity modelling to ensure that BWCE will be able to cover its financing and other operating costs. Comfort was taken from BWCE's history of successful raises and repayments, and its current and forecast financial position.

3.1.2. Private Finance Initiative (PFI)

Historically, some schools have been built, maintained and financed through private sector contracts, allowing for off public balance sheet treatment. The Private Finance Initiative (PFI) model is a form of Public Private Partnership (PPP) used globally as a means of financing projects. Although the PFI model is no longer actively in use for new projects, it involved the private sector designing, building, operating and maintaining schools over a set contract period, thereby transferring the risk away from the public sector.

Theoretically, designed fairly, this model offers good value for taxpayers by outsourcing funding to the private sector. However, in some cases, the contract terms have led to disproportionate costs at the school level and at times, the condition and maintenance of schools have suffered. Additionally, these contracts have not been actively managed by public sector functions, with wider pressures across the LA landscape often resulting in cuts to contract management functions.

While acknowledging the ongoing challenges of the PFI model and concerns about private financing in the education sector, it is crucial to apply lessons learned to inform the use of private provision within the sector. This includes iterating robust contracting frameworks to ensure the appropriate risk transfer alongside supporting public contract management functions. The investment challenge cannot be borne by the public sector alone.

3.1.3. Market Feedback & Barriers to Scale

Barriers Experienced by Financial Institutions

Market feedback from financial institutions on the existing landscape has indicated that the main barrier to scaling these private solutions is the restrictive borrowing policy on schools. Under current HM Treasury accounting rules, school exposure is classified as public debt, necessitating the DfE to hold full collateral against exposure in case of a default. Consequently, schools must obtain Secretary of State approval to access private finance, bar a few exceptions, this also includes PPAs. See Annex 4 for further detail on the borrowing policy for schools.

Multi Academy Trusts are permitted to borrow through an operating lease arrangement within the current framework. However, in some cases upon closer inspection, some of the operating leases entered into by MATs could more closely resemble finance leases and are therefore at odds with borrowing policy prohibiting this type of financial product for financing retrofit technologies. Financial institutions active in the sector refer to this ambiguity in the policy as *ultra vires*²⁸ risk, which they reported as a significant credit risk.

Further barriers to private capital entering the sector as cited by financial institutions include:

- Some of the technologies associated with retrofit have long payback times, decreasing confidence in repayment through energy savings. This is compounded by limited funds at the school level increasing debt serviceability risk.
- Retrofit technologies require proper operation and maintenance to achieve the anticipated energy savings, which will be needed to repay any finance.
- Lending to the sector is likely to be viewed as unsecured as in an enforcement scenario, a financial institution would likely not look to reclaim retrofit assets deployed. This in turn has cost of capital and risk implications.
- Some financial institutions have minimum ticket sizes, meaning lending directly to schools on an individual basis would not be possible in this case and aggregation would be needed.
- Even though debt serviceability is a key risk, financial institutions noted it is important that the primary objective of education is not impacted by the need to repay any finance.

Barriers Experienced by Community Energy

- Community energy groups typically finance their projects through share offers or bonds. These alone are insufficient to finance the current community energy pipeline and it is unsustainable to rely solely on community members for project funding. Bonds are less attractive forms of financing due to their higher cost of capital.
- Obtaining bank funding is challenging because of the extensive due diligence requirements on a project-by-project basis, in addition to the higher cost of capital these institutions present. Bridging finance is critical for community energy projects in their development phases. However, it is expensive and typically only available when refinancing capital is clearly available.
- When combining different types of funding at a community energy entity, any bank or institutional funding would rank senior to community share or bond issuances leading to considerations around order of repayment in a default scenario. However, it is generally accepted that the investors in the community share offers and bonds are happy to take this position.
- Financial due diligence and leadership expertise assessments are conducted on community energy groups seeking to access funding and further financing. These groups must demonstrate a robust financial history and have staff capable of effectively managing projects and finances.

²⁸ *Ultra vires* is a term used in law to describe an act that requires legal authority but is done without it. In this context, a school may unknowingly enter into a financial arrangement in which they do not have the legal authority to execute, making the arrangement invalid.

3.1.4. Recommendations for Scaling Existing Private Solutions

GFI engagement has consistently shown that community energy and private delivery organisations could begin to scale and fill more of the investment gap, subject to a clear borrowing framework for schools and decarbonisation plan for the school estate, and the increased investor confidence that would bring. Market feedback identified specific recommendations to assist with this scaling:

Recommendation	Audience
1. Documentation and process standardisation: Standardisation of documents and processes would improve investor confidence and relieve the pipeline bottleneck. Specific examples to support schools include a standardised PPA approved by DfE to expedite the current approvals processes which can delay projects.	DfE, DESNZ
2. Government and/or NWF support with project due diligence: The Government and/or NWF could assist by utilising Local Power Plan funding already announced amongst other public funds to assist with early-stage due diligence, often a barrier to accessing private finance for community energy projects.	DESNZ, NWF, Private Capital
3. Strengthening communication channels: Communications around the Net Zero Accelerator Programme have not reached the appropriate stakeholders within community energy networks. There is already existing infrastructure for a regional delivery programme which the NZA is looking to achieve which should be incorporated into the strategy for upcoming phases.	DfE
4. Effective use of grants: Grants should be acting as risk capital where private finance is not able to support alone, and community energy groups and delivery organisations should support where there is a viable business case, i.e. solar and LED.	DESNZ, DfE

3.2. Innovative Financial Solutions

It is evident that despite some existing initiatives to mobilise private capital into the education sector, these are exceptions rather than the rule, and more innovative financial mechanisms and radical cross-sector collaboration is needed at scale to unlock the required investment. This section explores innovative solutions identified and designed by the GFI-Ashden partnership, along with considerations for implementation and scale. These solutions are non-exhaustive and not mutually exclusive; they are considered in addition to scaling existing solutions.

- A loan scheme for schools
- A Schools Green Transition Fund (SGTF) that utilises the inherent government support for school energy bills to generate upfront funds from the private capital markets
- Selling carbon credits associated with emissions reduction from school retrofit
- Property Linked Finance (PLF)
- Energy- or Heat-as-a-Service (aaS)

3.2.1. Loan Scheme

A loan scheme for schools could look to manage the upfront cost of a retrofit via repaying over an agreed term. As discussed above, schools can take out operating and/or finance leases subject to the DfE’s borrowing framework but this doesn’t include all technologies associated for retrofit. Recommendations from financial institutions were to add decarbonisation technologies to the exceptions list to mobilise private capital into the sector, alongside a clearer guidance and framework for schools borrowing.

Benefits	Considerations
There is already a framework in place so adding further technologies to the exceptions list is more efficient than designing a new framework.	Certain technologies, such as heat decarbonisation and fabric improvements, have longer payback periods which makes it harder to model repayment through savings, compounded by tight school budgets. Current HM Treasury accounting treatment would mean a large liability for the DfE. Ownership and operation and maintenance obligations with finance and operating leases.

Cost of capital for the school is also a key consideration – in order to reduce this, support from Government and associated bodies is required. Stakeholders participating in the GFI’s finance roundtable noted that a government or NWF guarantee would not only reduce the cost of capital, but provide the comfort needed to scale capital deployment in the sector. The main consideration here from the NWF perspective is the lack of borrowing track record within the schools sector when modelling risk weightings for a guarantee.

Previous Success within Social Housing: The NWF catalysed private investment into public sector retrofit by providing guarantees, resulting in Barclays and Lloyds each delivering £500m of lending. This £1bn fund will be deployed through Social Housing Retrofit Loans, where the NWF guarantees 70% of lending to UK not-for-profit registered providers of social housing. Lloyds will support through shorter duration loans and mid-to-long duration loans to be provided by Barclays to provide flexibility on terms to the social housing market²⁹. This guarantee enabled Barclays and Lloyds to deploy more capital than originally envisaged to assist with retrofitting social housing.

Market feedback indicated that a guarantee could be structured to evolve over time – falling away for the more mature technologies once a market is established, and pivoting to support the measures with longer payback periods where private finance appetite is currently lower, as the market, supporting policy environment and technology matures.

²⁹ (National Wealth Fund, 2024)

Recommendations for Implementation

Recommendation	Audience
1. Refining the schools borrowing framework: Invite expert input on refining the DfE's borrowing framework to capture the views of both funders and schools, whilst ensuring debt service repayment through for example, sizing repayments to a percentage of capital funding and developing approved counterparty lists.	DfE, HMT, Private Capital
2. Standardising documentation: This can extend further by looking to develop a standardised term sheet for a school to take to a financier in collaboration with suppliers/delivery counterparties. This can encourage competition when taking it to financiers on an approved list, ensuring cost of capital is in line with the market.	DfE, Private Capital
3. Catalytic NWF support: Exploring NWF involvement through innovative measures, in particular based on investor feedback, a guarantee. Given the lack of borrowing track record, an initial tranche can start small to ensure risk mitigation and minimise public liability.	NWF
4. Exploring benefits from the new fiscal framework: The recent changes to the fiscal framework should ensure that Government investment into infrastructure is accounted for as an asset within the definition of public debt. See below call out box.	HMT, DfE
5. Reconsidering accounting treatment: HM Treasury could look to reconsider the accounting treatment of school exposure through revisiting the default rate of finance instead of holding 100% collateral, which is a potential inefficiency in capital allocation methodology.	HMT, DfE

In light of the recent changes to fiscal rules, the Government could borrow and subsequently on-lend to schools without affecting the calculation of public net debt, defined by Public Sector Net Financial Liability (PSNFL). This enables the Government to provide loans to schools at gilt rates, possibly with a modest interest rate markup, to finance repayable retrofit technologies. The Government and DfE could consider discussing a potential loan programme in this way routed through the NWF, subject to enabling them to lend to schools.

3.2.2. Schools Green Transition Fund (SGTF)

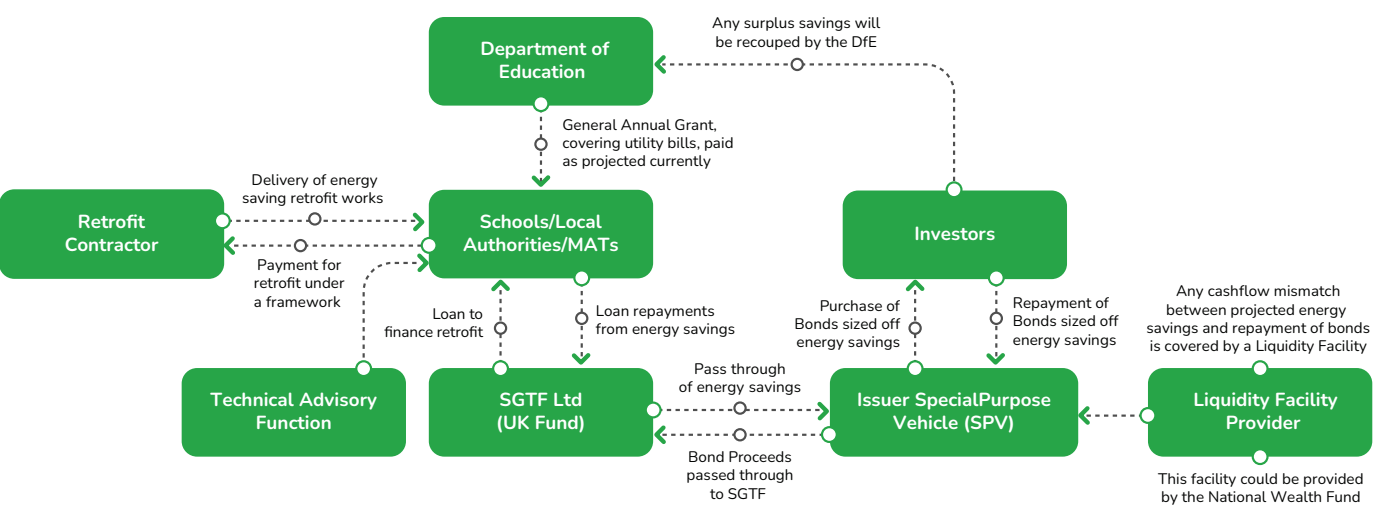
The GFI is exploring opportunities for insurance and pension funds to invest in UK infrastructure at scale, supporting the delivery of decarbonisation while minimising the impact on the public finances. The proposed Schools Green Transition Fund (SGTF) aims to utilise public capital more efficiently, alongside a delivery mechanism designed to harness the firepower of private capital markets.

A centrally sponsored and administered SGTF could leverage the strength of the government covenant in its school funding grants to raise significant upfront private capital. This approach would facilitate partial retrofits across the school estate at no additional cost to taxpayers by monetising reliable energy savings. The Government will continue to fund schools through the General Annual Grant (GAG), which covers their energy bills as usual. However, the SGTF

structure would securitise these energy savings from retrofits to generate funding from institutional investors for upfront project costs. Given the inherent government backing of the cashflow, this would ensure the lowest cost of private capital.

Energy bills for schools have surged and are expected to continue rising – the DfE estimates the spend on energy will be over £1.7bn this year³⁰. The government ultimately funds these energy bills and the DfE is responsible for retrofitting the school estate. Given the limited grant support through PSDS and the constraints on the public balance sheet, the SGTF would provide a balance sheet neutral financing solution for retrofitting. This solution leverages low-cost private capital to address the investment challenge and once the financing costs are covered, all surplus savings return to the Government. The figure below illustrates the SGTF structure.

SGTF structure diagram



³⁰ (LocatED, NET ZERO ACCELERATOR: PRE MARKET ENGAGEMENT – DRAFT INVITATION TO TENDER AND CONTRACT DOCUMENTS FOR COMMENT, 2025)

This structure is viable if the energy savings realised can cover the upfront investment costs and financing expenses over a term acceptable to institutional investors. However, our initial modelling indicates that some retrofit technologies, such as heat decarbonisation and fabric improvements, have longer payback periods and do not meet these criteria. Conversely, the investment case for deploying mature, proven technologies such as solar, LED and building management systems at scale is compelling. If the Government were to install solar panels across the school estate over the next seven years, the cost-neutral financing would generate a surplus of over £1bn by 2035 and over £2bn by 2045³¹. This surplus would free up capital within the DfE to look at funding retrofit measures with longer paybacks such as fabric improvements and heat decarbonisation.

The SGTF is a flexible structure which can be iterated to include other forms of public capital to further increase the leverage ratio for private investment. It could also be adapted to condition improvement to the estate alongside retrofit investment. When considering a blended version of the SGTF, this structure could be adapted to address some of the retrofit technologies which have longer payback periods.

Under the new fiscal framework, Government investment into infrastructure is now realised as an asset in the new definition of ‘Public Sector Net Financial Liability’. Structuring of the SGTF would align with this change³².

Recommendations for Implementation

Recommendation	Audience
1. Delivery Group: The SGTF builds on the principles that GFI has worked through with the Association of British Insurers’ ‘Investment Delivery Forum’ ³³ , and as such is likely to be viewed favourably by the pension and insurance community, providing direct access to the most efficient and suitable pool of capital for a transaction of this type. A delivery group comprising of the GFI, DfE and the finance community should co-design the implementation and scaling of the SGTF structure.	DfE, NWF, Private Capital
2. Pilot: A small SGTF could be piloted - schools could be chosen either regionally to deliver community co-benefits in the form of local generation, or potentially via school condition archetype. The latter approach could identify schools with large roofs where solar is easily installed, creating speed to market, but could also identify schools in need of roof repairs through the DfE’s Condition data, increasing impact via synergising solar installation with roof repair.	DfE
3. NWF Support: Engage with the NWF to understand how they could assist in delivering this structure as envisaged in the structure above through a liquidity backstop facility, likely to be achieved through mezzanine debt financing consistent with their product offering, to respond to temporary mismatches within structural cashflows.	NWF

³¹ Initial modelling based on assumptions from Barker Associates

³² (HM Treasury, 2024)

³³ (Investment Delivery Forum, n.d.)

3.2.3. Carbon Credits

A carbon credit or carbon offset is a method of compensating for emissions of carbon dioxide or other greenhouse gases. It is a reduction, avoidance, or removal of emissions to balance out those released elsewhere. One carbon credit equates to the reduction or removal of one metric tonne of carbon dioxide or an equivalent amount of other greenhouse gases that contribute equally to global warming (CO2e).

Credits can be bought, sold and traded in the Voluntary Carbon Markets (VCM), helping businesses achieve their decarbonisation goals and invest in impactful projects with measurable outcomes. Demand for carbon credits is projected

to increase 15-fold by 2030 and 100-fold by 2050, potentially making the global carbon credit market worth over \$50bn³⁴.

HACT (Housing Associations’ Charitable Trust) and PNZ Carbon run a programme called Retrofit Credits. This programme aims to unlock investment in social housing retrofit by verifying the emission reductions and social value of these projects, thereby generating carbon credits. These credits are issued annually for up to 20 years, providing a long-term revenue stream³⁵. This offering could be pivoted into the education sector.

Benefits	Considerations
Carbon credits can generate additional income for completed projects. Stakeholder feedback indicates that School Retrofit credits would be considered ‘high quality’ within the VCM, leading to consistent demand. As the carbon markets are projected to grow significantly, potential revenues from credit sales are expected to rise accordingly.	The revenue from selling carbon credits typically does not cover the upfront costs of the retrofit. Moreover, the retrofit has to be completed before any revenue can be realised, leaving the challenge of securing initial financing. Considering broader market sentiments regarding the use of credits in net-zero strategies, there are concerns about whether this approach can address a substantial portion of the investment required to decarbonise the school estate.

³⁴ (Taskforce on Scaling Voluntary Carbon Markets, 2021)
³⁵ (HACT, n.d.)

Recommendations for a Pilot and Subsequent Scale

Recommendation	Audience
1. Pilot project and funding: Pilot the scheme, with initial funding either provided by the carbon credit issuer or other sources. Examples could be grants from specialised funds, lending from funds such as the Mayors Energy Efficiency Fund (MEEF) or private funding routed through the issuer from financial institutions or crowdfunding.	Credit Issuer, DfE, Private Capital
2. Effective use of grants: Grants to be used strategically to fill the gap between the projected credits revenue stream and the upfront cost of the retrofit.	Credit Issuer
3. Catalytic NWF support: NWF could look to support the initial financing of projects, subject to confidence in repayment, potentially restricting to technologies with proven payback through energy savings.	NWF
4. Scale considerations and recycling funds: When considering scale, building in how the upfront cost of the retrofit will be managed is critical given the restrictions on schools accessing private finance. Should the concept be proven, policy around schools borrowing could be amended with credit revenue projections in mind. For example, given it is assumed that the credit won't cover the full upfront cost of the retrofit, this could be tackled in phases: the more mature technologies could be installed to generate a carbon credit revenue stream. The upfront cost could be managed through private finance with enabling policy. The revenue stream could then be saved to generate a recycled fund, subject to an appropriate central pooling system, to tackle the harder to finance measures at a later stage when the market has matured.	Credit Issuer, DfE
5. Aggregation and securitisation: Once a considerable level of scale has been achieved and enough projects seed funded, credit revenue streams can be aggregated and coupled with long-term visibility based on annual issuance – this could be securitised to generate capital upfront to fund more projects.	Credit Issuer, DfE

3.2.4. Property Linked Finance

Property-Linked Finance (PLF) is a potential financial solution that can fund up to 100% of the upfront costs of a project that improves the environmental performance of a property, including installation of low carbon technologies, increased energy efficiency and enhanced climate resiliency measures.

PLF is long-term, affordable finance that is linked to the property, rather than the property owner. The term of PLF matches the useful life of the environmental improvement measures which can be as long as 20-30 years. The 'linking' of PLF to the property is intended to overcome the 'payback period' barrier – a major challenge to the decarbonisation of UK buildings, whereby owners are deterred from making environmental improvements to their properties where the payback periods are extensive. This would be helpful in addressing the financing challenge of retrofit technologies with longer payback periods such as heat decarbonisation and fabric improvements. Given the finance is linked to the property, the obligation to meet PLF payments would transfer to the new property owner on the sale or transfer of the property.

PLF is designed as a non-accelerating form of finance, which limits the liability in the event of non-payment to the amount in arrears at the time and not the total outstanding balance. The GFI has co-designed a greenprint for PLF with NatWest Group and Lloyds Banking Group, outlining a step-by-step plan to scale PLF into a thriving market³⁶.

PLF is proposed to be 'linked' to the property via a new Local Land Charge, which will serve as the basis for repayment. A substantial portion of the school estate comprises land owned by LAs, enabling them to act as the borrower to undertake works for maintained schools. Alternatively, they may pass through charges to MATs, which typically lease this land from LAs. While we understand that imposing charges on this land may necessitate approval from the DfE, and that the PLF product requires enabling legislation to introduce the new PLF Local Land Charge, the significant opportunity it presents to bridge the investment gap with patient, long-term capital makes it viable for the school estate.

Recommendations for Implementation

Recommendation	Audience
1. Delivery Group: Develop a delivery group comprising of the GFI, DfE and the finance and legal community to co-design Property Linked Finance in accordance with school borrowing frameworks, or to recommend appropriate policy levers to unlock this long-term financial solution.	DfE, Private Capital
2. Policy Change: Government to enact the new Local Land Charge for the use of PLF within schools, and potentially the wider public sector.	DfE
3. Pilot: Selecting a group of schools to pilot PLF, potentially using the NZA Programme as a runway and allowing the education sector to lead public sector decarbonisation by example.	DfE, Private Capital

³⁷ (Carbon Trust)

³⁸ (Tallarna, n.d.)

³⁹ (Sero, n.d.)

3.2.5. Energy- and Heat-as-a-Service (aaS)

Energy- or Heat-as-a-Service (aaS) encompasses a retrofit model delivered by or in partnership with an energy company. Under this model, the energy company assumes responsibility for installation, operation, maintenance and financing of the energy system on behalf of the customer. The energy company then integrates the cost of the retrofit into the energy bill, allowing repayment through regular utility payments rather than a separate payment obligation.

This model is currently being explored by various stakeholders including e.on as part of the Green Home Finance Accelerator³⁷, alongside organisations like Tallarna³⁸ and Sero³⁹ providing similar services for social housing.

An as-a-Service model would provide a simple solution for schools – there would be no separate repayment channel as this is included within their energy bill and could look to address some of the retrofit technologies with longer payback periods. Alternatively, this could be routed through the Local Authority infrastructure given they can procure energy on behalf schools and often realise economies of scale.

At a broader level, this solution transfers the risk, and therefore financial liability, to the private sector. This is beneficial in the context of constraints on the public balance sheet. However, it requires a robust framework to ensure roles, responsibilities and risk transfer is appropriately defined across the public and private partnership, alongside public sector support to manage these potential agreements.

At a school level, this could represent an increased burden on energy bills due to the increased price of electricity versus gas and the added repayment charge. In the UK, electricity is around 4.5 times the price of gas⁴⁰. Although low-carbon alternatives may result in higher bills currently, policy developments on rebalancing prices of electricity versus gas may change this. The ongoing Review of Electricity Market Arrangements (REMA) looks to support a plan to identify reforms needed to transition to a decarbonised, cost effective and secure electricity system, exploring in particular, decoupling electricity prices from gas prices⁴¹. However, in some cases, the increased energy efficiency and ability to export energy back to the grid may also result in a decrease on energy bills.

Recommendations for Implementation

Recommendation	Audience
1. Financial Modelling: Financial modelling should be undertaken to establish how much additional cost a school could bear on their energy bills, alongside sensitivities around energy price volatility. This may inform the need for insurance and/or guarantees on energy savings.	DfE, Private Capital
2. Policy: Explore how policy surrounding the rebalancing of gas versus electricity prices can make this solution more palatable, alongside electrification in general.	DfE, DESNZ
3. Pilot: Select a group of schools to pilot aaaS, potentially using the NZA Programme as a runway and allowing the education sector to lead public sector decarbonisation by example.	DfE, Private Capital

⁴⁰ (Nesta, 2023)

⁴¹ (Department for Energy Security and Net Zero, 2025)



4 Conclusion

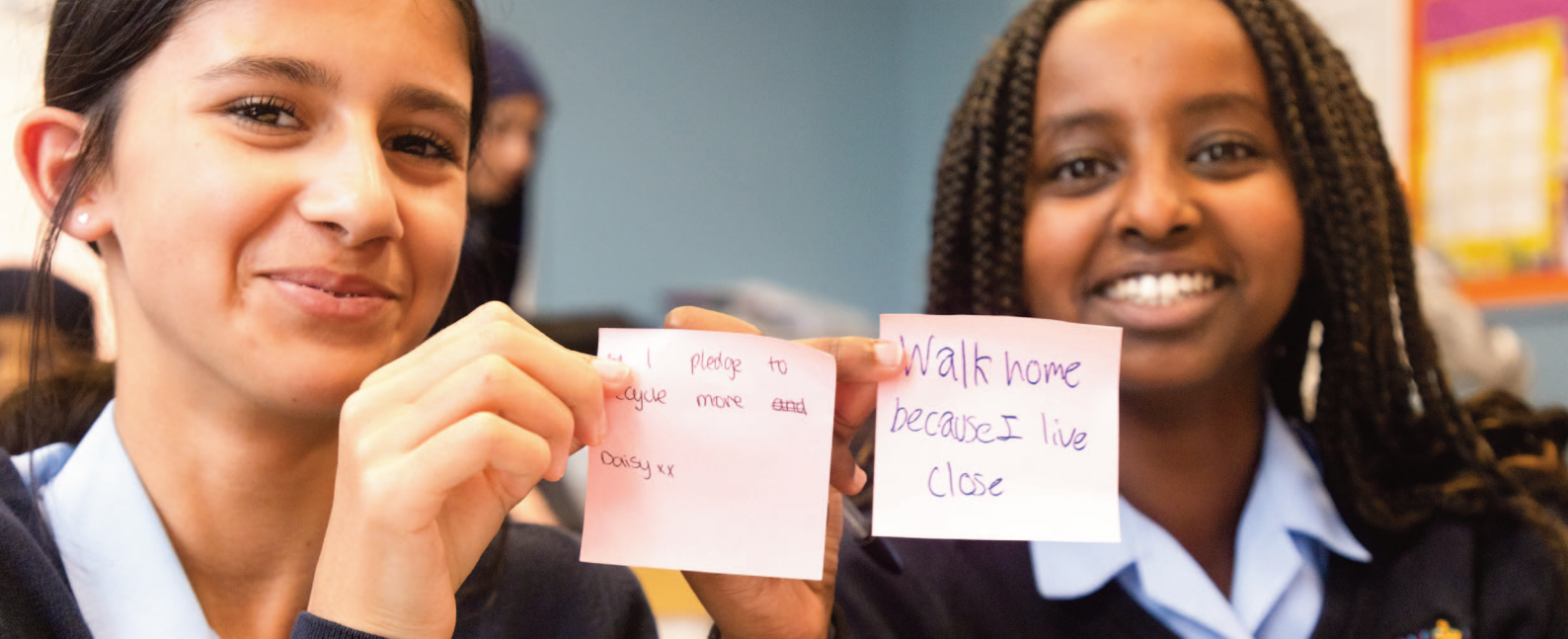
Public funding in isolation cannot reach the level of investment needed to unlock the opportunity that decarbonising the school estate represents. Strategic use of public funds alongside catalytic investment from public finance institutions, will be critical in mobilising private finance to fill the investment gap.

From a school perspective, achieving a reduction in energy bills can alleviate short term financial pressures. A retrofit also presents an opportunity to co-deliver condition improvement works, achieving more significant impact and fostering healthier learning environments.

The opportunity extends beyond schools to wider community co-benefits. Schools are already key community hubs and their underutilised roof space presents an opportunity to increase energy security for local communities, in line with the Local Power Plan. Furthermore, it aligns with the Government's 2030 clean power commitment and target to increase solar capacity from 15GW up to 47MW by 2030⁴². Long term investment in decarbonising the school estate presents an opportunity to lead public sector decarbonisation by example and decrease school energy bills through retrofit and condition improvement, freeing up funds for reinvestment.

There is substantial private sector interest ready to support this opportunity subject to the appropriate enabling conditions being created – notably changes to public borrowing rules. A review of existing public funds, such as the PSDS, Local Power Plan commitments, and DfE and/or DESNZ capital, along with an assessment of how the NWF could contribute, reveals opportunities to attract private capital to support the necessary scale of investment. The NZA programme provides an established framework for the Government to lead public sector decarbonisation by example through the school estate.

⁴² (National Energy System Operator (NESO), 2024)



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- Department for Education
- DLL
- eEnergy
- Energy Systems Catapult
- Green Future Investments Limited
- Housing Associations' Charitable Trust (HACT)
- HSBC UK
- Impax Asset Management
- Less is More Capital
- Lloyds
- Local Partnerships
- LocatED
- NatWest
- Oxfordshire County Council
- PNZ Carbon
- Santander UK
- SE24
- Solar for Schools
- South West Net Zero Hub
- Teach the Future
- Unity Trust Bank

Any views expressed in this paper do not necessarily represent the views of each contributing entity, including those views expressed in the relevant working group(s) that assisted in the preparation of the paper.



6 Appendices

6.1. Solution Comparison Summary

The below table indicatively compares the financial solutions covered in this report against four key variables:

- Impact on Definition of Public Sector Net Financial Liability (PSNFL), the new metric of debt as defined in the new fiscal framework which recognises the value of the assets invested in by the UK Government and its public finance institutions⁴³
- Whether policy exceptions are required
- Overall ease to deliver

⁴³ (National Energy System Operator (NESO), 2024)

Solution Comparison Summary

	Impact on PSNFL	Policy Enablers Required in Current Environment	Overall Ease to Deliver
Local authority schemes	Neutral	No	High
Loan Scheme: Government loan scheme funded with private capital	Increase, under the current accounting treatment	Yes, amendment to the current borrowing framework required	Low
Loan Scheme: NWF Lending Scheme with public capital	Neutral	Yes, restriction on lending to schools to be lifted	Medium
Private delivery organisations	Neutral	No	High
As-a-service	Neutral	Further analysis required	Further analysis required
Community energy	Neutral	No	High
Carbon credits	Neutral	No	High
SGTF	Neutral, with the potential to decrease PSNFL	No	High
PLF	Neutral	Yes, enabling legislation required	Low

Note this is an indicative assessment to allow for comparison of the solutions proposed in this report. Refer to each respective section for further detail on impact on PSNFL, policy enablers required and how this could be implemented.

Annex 1: Further Detail on the Net Zero Accelerator Programme

Phase one of the NZA included a feasibility study across 50 schools which resulted in phase two, a pathfinder project, appointing two delivery partner consortia to lead the decarbonisation of those schools aiming to deliver:

- a detailed decarbonisation plan
- a programme of behavioural change
- optimisation and installation of controls
- optimising energy procurement
- data collection and capture including reporting via a dedicated platform⁴⁴.

The next phase of the NZA will look to appoint three delivery partners (or consortia) to regionally deliver the following decarbonisation initiatives for three batches of 47 schools:

- decarbonisation plan
- behavioural change
- optimise controls
- assessment of energy procurement and community energy opportunities
- data collection.

This phase has invited input from the market on a 'Regional Alliance' model, looking to provide a full economic business case on how a regional condition, decarbonisation and resilience service could operate, be funded and add value to the existing processes and support services available to responsible bodies for their estate management⁴⁵. Tender submissions closed on the 18th March 2025 and is currently awaiting decision.

Annex 2: Local Authorities

Case Study 1:

Oxfordshire County Council Schools Energy Efficiency Loan Scheme

Key Considerations for Replication

Key market feedback has indicated that schools have varying technical and financial capabilities, often compounded by competing priorities such as general condition improvement of their estates. Implementing an impartial, quality-controlled technical advisory service, accessible in tandem with funding, is crucial to ensure schools install appropriate energy efficiency measures that are feasible to repay.

The success of OCC's scheme relies on its resources and funding, which may not be replicable elsewhere. Funded by the Council's capital programme, the scheme was oversubscribed, showing strong demand but uncertain future funding.

Interest-free loans are limited to solar, LED lighting, and battery storage due to their proven payback times, ensuring loan repayment. Other measures like fabric improvements have longer payback periods and are less feasible for financing.

The scheme is restricted to maintained schools, with legal advice being sought to potentially include academies. The 2024/25 programme is fully subscribed with £800,000 allocated, but project delays are common due to scheduling, grid upgrades, and administrative capacity. ACES maintains regular contact with schools to support project delivery.

⁴⁴ (LocatED, Net Zero Accelerator, 2024)

⁴⁵ (LocatED, NET ZERO ACCELERATOR: PRE MARKET ENGAGEMENT – DRAFT INVITATION TO TENDER AND CONTRACT DOCUMENTS FOR COMMENT, 2025)

Case Study 2:

Cambridgeshire County Council Schools Energy Retrofit Programme

Key Considerations for Replication

This scheme has been operational for over 10 years, demonstrating how LAs can successfully deliver and finance decarbonisation projects. The EPC approach is fundamental to this success, building on the Re:fit programme with CCC developing their own framework. LAs are trusted advisors to schools within their catchment areas, although the depth of the relationship varies depending on the type of school. By delivering the work at the LA level, different funding sources can be blended to achieve deeper decarbonisation than would otherwise be possible due to restrictive payback times for certain retrofit technologies.

The structure of this scheme allows for an affordable repayable finance arrangement for budget-constrained schools. Schools are unlikely to be in a position where they cannot repay the loan or lease, as the repayments are sized to be less than the projected energy savings, which are further guaranteed by the contractor through the framework. CCC has also managed to offer solutions for both maintained schools and academies through this programme through different financial structures to comply with DfE policies.

The success of this scheme. However, has depended on the resource and financial capabilities of CCC, which may limit its replicability across the broader LA landscape. Although the guarantee provides comfort that costs can be recouped if the technologies do not deliver as expected, invoking the guarantee can be challenging in practice. Since schools are responsible for maintenance post-installation, it can be difficult to contractually prove that any unrealised savings are the contractor's responsibility, rather than the school's.

Barriers faced by Local Authorities

As there is no formal mandate requiring LAs to decarbonise schools within their area, and there are varying levels of communication and influence across different types of schools, the LA funding landscape for schools is highly fragmented and inconsistent. Nonetheless, some LAs are attempting to provide assistance where funding and resources are available, though they encounter obstacles in both implementation and scale.

- **Capital gap:** Fundamentally there isn't enough funding coming through to pick up the basic maintenance of the schools as they exist, let alone an increase needed for decarbonisation works.
- **Revenue gap:** The Statutory Schools Maintenance Programme (SSMP) can only cover a prescribed list of activities, this includes lighting but doesn't include solar. As such, decarbonisation activities for the installation of heat pumps will increase the revenue costs of an already overstrained school budget.
- **Statutory Schools Maintenance Programme (SSMP) structural failures:** The system is predicated on the schools adequately conducting maintenance issues, i.e. gutter clearances and boiler services, however if these activities do not take place, the Council rather than the school is responsible for replacing the broken infrastructure.
- **Grid issues:** Many maintained schools are small primary schools located in rural areas, often at the ends of electricity grid spurs. These schools frequently represent the largest electrical demand in their villages, which can necessitate significant upgrades to the local grid—a process that can be time-consuming. For example, challenges present themselves with private landowners where LAs face substantial delays and costs due to negotiations over access rights. While legal action is an option, it is often more expedient and cost-effective to reach a financial agreement.

- **DfE/DESNZ strategy:** It is yet to be confirmed what the exact strategy for decarbonising schools is. This delay could result in many more gas boiler installations and stranded infrastructure for numerous schools. Clear guidance from the DfE and/or DESNZ is urgently needed to navigate this transition effectively.
- **PSDS funding gap:** Although the recent changes to the PSDS scheme provide a clearer funding opportunity, the application criteria leads to a significant funding gap for many schools when adopting a whole building approach where they are unable to meet the match funding requirements or lose out relative to other public organisations who can realise economies of scale.

Annex 3: Grant Schemes

Grant support is available through schemes like PSDS and the Low Carbon Skills Fund. PSDS, managed by Salix Finance, provides grants for heat decarbonisation and energy efficiency measures for public sector bodies. Previously, Salix offered an interest-free loan to manage the upfront cost of retrofitting and energy efficiency measures, but this has now been replaced by the grant-based PSDS. The Low Carbon Skills Fund assists public sector bodies in obtaining expert advice to develop energy efficiency and low carbon heat projects, and to prepare applications for grant schemes⁴⁶.

Barriers to Schools

PSDS, along with the Low Carbon Skills Fund, are grant schemes that open for applications in windows and often require long application processes. If such a window is within a school break, this puts schools at a disadvantage. Market feedback has indicated that many applicants employ advisors to assist them with putting together a successful bid, which often incurs fees, on top of already stretched school budgets. It is understood that under the evolving application criteria, schools are competing with other public sector organisations for limited funds and some stakeholders have signalled that schools are

potentially missing out due to economies of scale compared with organisations such as NHS Trusts. If funding is received, this comes with reporting requirements which feedback has indicated that schools struggle with resources to complete.

Policy Recommendations from Ashden Let's Go Zero to Increase Effectiveness of Grant Schemes

The government has committed to review the current DfE sustainability and climate change strategy and produce a “more ambitious strategy” in 2025 that will “deliver an education estate that is prepared for net zero and resilient to climate change with settings that are designed for sustainability in their construction and operation, providing access to nature and outdoor learning, on a scale that catalyses innovation in the building industry”. The government has also said that future funding arrangements of PSDS will be determined at the next spending review.

To deliver on these commitments, the government should introduce an enhanced version of PSDS, supported by long-term capital settlements at the June Spending review. This scheme should be tailored for schools, with simplified administration, better-targeted grant funding, and alignment with school funding cycles and the academic year.

By the end of 2025, the government should deliver a cross-departmental, fully funded strategic roadmap for net zero and climate-resilient schools, including enabling policies to:

- **Transform school funding:** Establish a simple, fair, and comprehensive funding programme for school decarbonisation and adaptation
- **Unlock private investment:** Remove barriers and provide clear guidance for schools to access repayable finance
- **Build school capacity:** Practical support measures for schools to cut energy costs and take climate action
- **Develop tomorrow's green workforce:** Enhance green careers information advice and guidance in schools

⁴⁶ (Department for Energy Security and Net Zero, 2024)

Annex 4: Policy on Private Finance in Schools

The DfE has established borrowing restrictions and exceptions for schools seeking private financing. This policy protects schools and the provision of education, preventing scenarios where schools may take on debt they are unable to repay, but it creates an environment in which private capital is unable to support the large investment challenge that decarbonisation represents.

Under current Treasury accounting rules, school exposure is classified as public debt, necessitating the DfE to hold full collateral against exposure in case of a default. Consequently, schools must obtain Secretary of State approval to access private finance, this also includes PPAs.

However, certain technologies are considered 'lower value' allowing schools to privately finance these without seeking approval. These assets include IT equipment, photocopiers etc. and are listed on a pre-approved consent list. Unfortunately, this list excludes more retrofit technologies, with the exception of LEDs. Historically, some schools utilised operating leases to access off public balance sheet funding. However, maintained schools and MATs now adhere to different accounting standards, resulting in a fragmented funding landscape:

- **Maintained schools** are prohibited from entering into either operating or finance leases unless the technology is on the pre-approved consent list. This change is due to the introduction of IFRS16 accounting standards at LAs, which ended the distinction between operating and finance leases.
- **MATs**, on the other hand, follow different accounting standards and can continue to enter into operating leases, but can only engage in finance leases for technologies listed on the pre-approved consent list.

This disparity has created an uneven borrowing landscape where MATs can utilise operating leases to finance retrofits, albeit through complex agreements, while maintained schools cannot.

Definition:

Finance lease is an agreement where the risk and return gets transferred to the lessee. Ownership is transferred to the lessee at the end of the lease.

Operating lease is an agreement where the risk and return stays with the lessor. Ownership remains with the lessor at the end of the lease, although there may be an option for the lessee to purchase the asset.

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