UK Government

salix

Public Sector Decarbonisation Scheme

Phase 4 Summary Report

DESNZ/Salix (2025)

Title image: University of York, Campus East

University of York has been awarded £35,149,935 to support the decarbonisation of multiple buildings across its main campus in York. Most buildings will be connected to an on-site geothermal heating network, while others will link to the existing district heating system. Vice Chancellor of the University Professor Charlie Jeffery said:

“This geothermal project is more than just a sustainable energy initiative; it’s a living laboratory that will drive research, educate our students and benefit our community. The project’s location enables us to blend academic curiosity with practical application, providing learning opportunities for our students, all whilst contributing significantly to York’s Net Zero ambitions. The support from the government is a vital catalyst for this transformative endeavour.”

(Image by: University of York)

Contents

This report provides an overview of applications received and grants awarded through Phase 4 of the Public Sector Decarbonisation Scheme.

A list of all projects funded in Phase 4 of the Public Sector Decarbonisation Scheme and short summaries of these can be found on the Public Sector Decarbonisation Scheme GOV.UK page: www.gov.uk/government/publications/public-sector-decarbonisation-scheme-phase-4

Executive summary

Phase 4 of the Public Sector Decarbonisation Scheme (PSDS) is the final phase of a multi-year programme to reduce carbon emissions across public sector buildings through the installation of low carbon heating and energy efficiency measures. Having opened applications to Phase 1 of the scheme in 2020, prior to 2024 there had been five application rounds: Phase 1, Phase 2, Phase 3a, Phase 3b and Phase 3c. Funding for Phase 4 covers financial years 2025/26 to 2027/28.

Phase 4 received 383 applications, requesting over £1 billion in funding. 245 applications were awarded grants, to be delivered by 207 public sector organisations. In total, more than £816 million has been allocated to support heat decarbonisation and energy efficiency improvements across the public sector. Phase 4 of the scheme continues to be administered by Salix Finance (‘Salix’) on behalf of the Department.

Unlike previous phases of the scheme, which awarded grants according to the order in which applications were received, Phase 4 used a targeted approach in allocating funding, ensuring grants were awarded to projects demonstrating the highest carbon savings potential. Applicants were required to adopt a whole-building approach to decarbonisation, assessing total energy consumption and integrating energy efficiency measures with the most appropriate low carbon heating technologies.

To support this, a carbon cost calculator ranked proposed measures by their cost-effectiveness (cost per pound £/tCO_2e saved), incentivising applicants to optimise project designs and maximise emissions reductions per pound spent.

Phase 4 is being monitored and evaluated to track delivery against key milestones and assess how effectively the scheme meets its objectives, informing a formal evaluation commissioned by the Department.

Across the lifetime of the scheme, over £3.5 billion has been awarded through more than 1,400 grants, helping public sector organisations reduce carbon emissions and energy costs.

At the Spending Review in June 2025, ministers have decided not to allocate further funding to the Public Sector Decarbonisation Scheme. As a result, no further phases are planned.

1. Background

The Public Sector Decarbonisation Scheme enables public sector organisations in England to install low carbon heating and energy efficiency measures across the public sector estate, supporting the government's clean energy mission.

National Portrait Gallery, London

The National Portrait Gallery in London has been awarded £5,869,600 to support the decarbonisation of the main public gallery space and the Orange Street building, which houses the archives and library. The existing gas heating systems in both buildings will be replaced with air source heat pumps.

(Image by: Olivier Hess)

1.1 Policy Drivers

The Public Sector Decarbonisation Scheme supports delivery of the UK's ambitious legally binding goal to become net zero by 2050. By enabling the transition to low carbon heating in public sector buildings the scheme will reduce carbon emissions from the public sector, contributing to meeting Carbon Budgets 4, 5, 6 and beyond. The Scheme also has an ancillary aim of reducing energy bills of public sector organisations and supporting jobs within the wider supply chain.

1.2 Scheme Objectives

The objective of Phase 4 of the Public Sector Decarbonisation Scheme is to support the transition to low carbon heating in public sector buildings and to contribute to the delivery of the UK's legislated carbon reduction targets.

1.3 Eligibility

Phase 4 of PSDS funding was available to public sector organisations in England, which were largely eligible to apply for funding. Organisations with sites in Northern Ireland, Scotland and Wales with reserved functions (such as military bases) were also eligible.

To be eligible Phase 4 applicants needed to meet the definition of a ‘public authority’ as set out in the Procurement Act 2023. This criterion was updated in line with public procurement legislation, replacing the Public Contracts Regulations. This change affected a small number of previously eligible organisations, most notably those universities whose funding is majority derived from private sources and international tuition fees. Eligible organisations included central government departments and their arm’s length bodies, emergency services, local authorities (including town and parish councils), state-funded schools (such as maintained schools, academies, multi-academy trusts, and free schools), some universities, further education providers, local authority-maintained nursery schools, and NHS trusts and foundation trusts.

Under new integrated settlements taking place from financial year 2025/26, Greater Manchester Combined Authority and West Midlands Combined Authority directly received budgets for decarbonisation of public sector buildings. To avoid duplication, these combined authorities along with their constituent local authorities and some other public sector organisations in those areas were ineligible to apply to Phase 4 of the scheme.

As in previous phases, installing a low carbon heating system was a core eligibility requirement so applications needed to include the replacement of existing fossil fuel heating systems with low carbon alternatives, such as heat pumps or connections to low carbon heat networks.

Energy efficiency measures were encouraged to support these installations as part of a whole building approach, helping to reduce overall energy consumption and, as a result, reduce energy bills. Additional eligible measures included building fabric upgrades, pipe insulation and heat recovery, all contributing further to emissions reduction and decarbonisation. Renewable technologies like solar PV were also eligible.

Funding was provided only for the additional costs of installing a low carbon heating system, that is, the costs beyond a like-for-like replacement of the existing fossil fuel heating system. On this basis applicants needed to cover a minimum of 12% of the total project costs.

National Maritime Museum

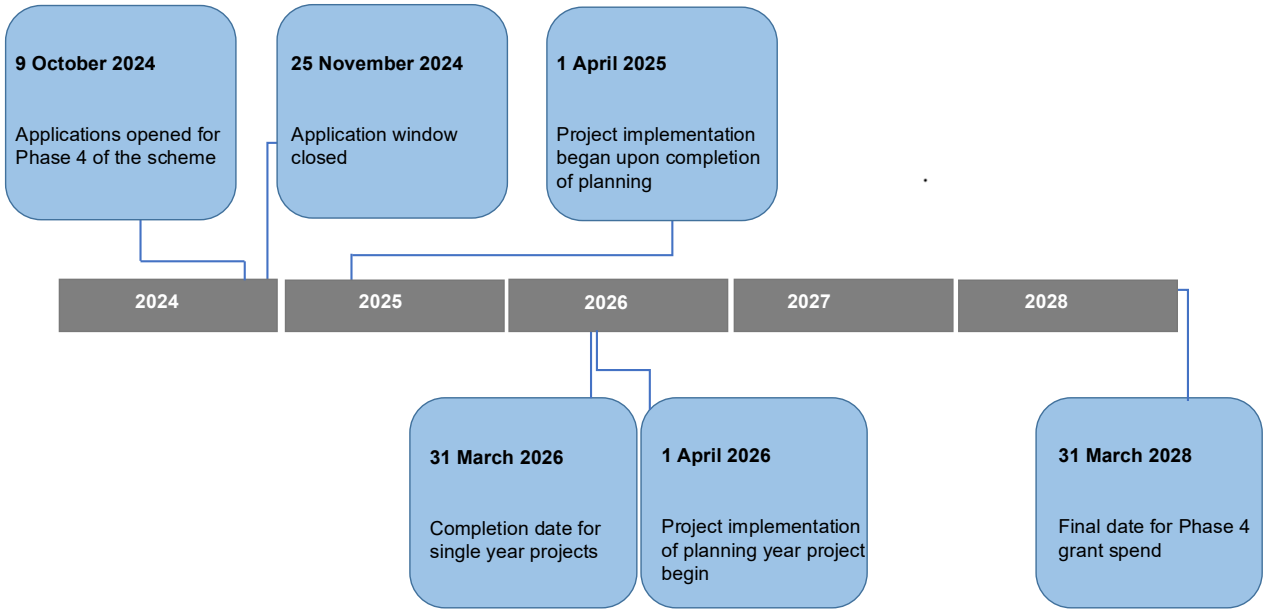
The National Maritime Museum has been awarded £200,000 to support the decarbonisation of the Royal Observatory Greenwich, a Grade I listed building of historical significance. An air source heat pump and an electric heater will be installed.

(Image by: Jamie Forbert Architects)

1.4 Timeline

Phase 4 opened for applications on 9 October 2024 and closed on 25 November 2024. The application window was open for longer than recent phases of the scheme and applications were not prioritised based on when they were submitted. Therefore, applications submitted at any time throughout the application window were given equal consideration when assessed.

Phase 4 of the Public Sector Decarbonisation Scheme spans three financial years from 2025/26 to 2027/28.



1.5 Changes to the scheme

Policy changes made in Phase 3c were continued into Phase 4, including the facility to include planning year applications as well as sectoral allocation caps across health, education, and all remaining sub-sectors, including local authorities. Under this allocation framework, the maximum funding a sector could receive was 35%, while no sector's allocated funding could fall below 30% of total Phase 4 funding. As in previous phases, these caps are 'soft', allowing any unallocated funding to be redistributed to other sectors.

Phase 4 brought in a new threshold grant carbon cost of £510/tCO_2e over the lifetime of the project for grant-funded measures. Applications above this figure were not assessed. This replaced the previously used Carbon Cost Threshold of £325/ tCO_2e which only applied to funded measures.

Phase 4 introduced a targeted allocation model designed to ensure applications that delivered the most carbon savings for the lowest grant cost were awarded funding first.

Applications were prioritised through a multi-step process: all applications were ranked and placed into one of three tiers based on the cost-effectiveness of their application. This is referred to as the Carbon Cost Tier. The top 30 percent of applications (by number) were assigned to the highest tier, the next 40 percent to the middle tier, and the remaining 30 percent to the lowest tier. Once categorised into one of the three tiers, applications were randomised before they were chosen for assessment. This meant applications would be awarded funding in a random order within the three carbon cost tiers and that any two applications in the same carbon cost tier would have an equal chance of being assessed and awarded a grant first. The top tier of applications were assessed first.

Applicants were able to use the carbon cost calculator in the application form to identify the most carbon cost-effective measures and buildings to determine how they might produce a more competitive application. The targeted allocation process was explained in Salix webinars and through guidance videos on the Salix website.

1.6 Budget

Budget 2024 allocated £1.024 billion for public sector decarbonisation for financial years 2025/26 to 2027/28. This budget covered funding for a second year of Phase 3c grant awards as well as three financial years of Phase 4 funding and the Integrated Settlements with Greater Manchester and West Midlands Mayoral Combined Authorities.

Over £816 million was allocated to Phase 4 projects. The performance criteria for Phase 4 of the scheme has been set at reducing direct emissions from public sector buildings by between 0.42MtCO2e and 0.56MtCO2e over Carbon Budget 4 and by between 0.45MtCO2e and 0.60MtCO2e over Carbon Budget 5 and Carbon Budget 6.

Based on the budget available for Phase 4 and the forecast spend, projected carbon savings modelling by Departmental analysts have calculated a carbon reduction of 0.57MtCO2e per annum in public sector buildings as a result of this funding.

1.7 Monitoring and evaluation

Monitoring is being undertaken to check progress against planned milestones. Salix collects data from grant recipients through monthly monitoring reports. These reports cover, but are not limited to, financial monitoring, project risk reporting and overall progress towards key milestones such as procurement, design completion, completion of works on site and project completion. Monitoring data also provides additional evidence for the scheme evaluation.

The Department is in the process of appointing a contractor to deliver an evaluation of Phase 4 which is expected to make use of scheme monitoring data along with other data sources.

2. Applications to the scheme

Applications were assessed against the eligibility criteria outlined in the Phase 4 guidance notes. The scheme received a total of 383 applications, with an overall value of £1.092 billion being requested.

2.1 Applications by value

No minimum or maximum value was set for applications. Applications ranged in value from £25,000 to over £40 million.

The median value of all applications was £937,250 and the average (mean) application value was £2,851,630.

Just over 7 percent of the total application values was for applications less than £1 million, while over 45 percent of total application value was for applications over £10 million. Over 50 percent of the number applications were for less than £1 million, while over 6 percent were for more than £10 million.

Figure 1 below shows the total number of all applications by value band and Figure 2 shows the total value of all applications by value band.

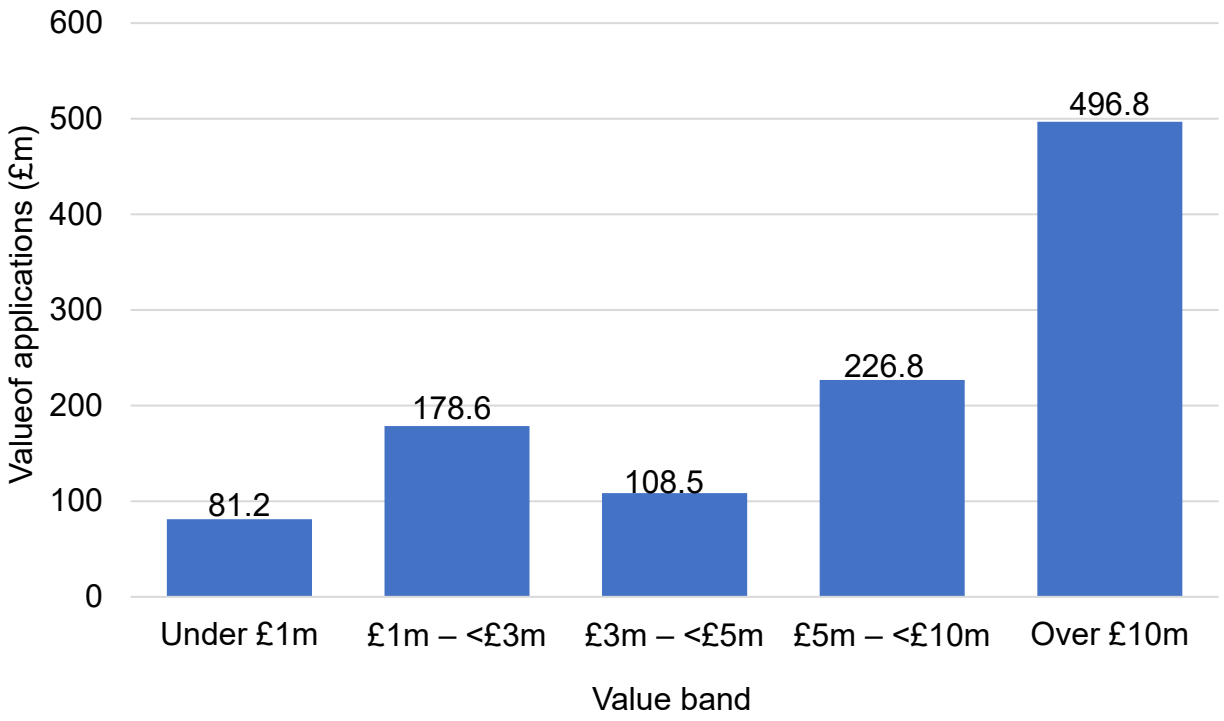


Figure 1: Total value of applications by value band (£m)

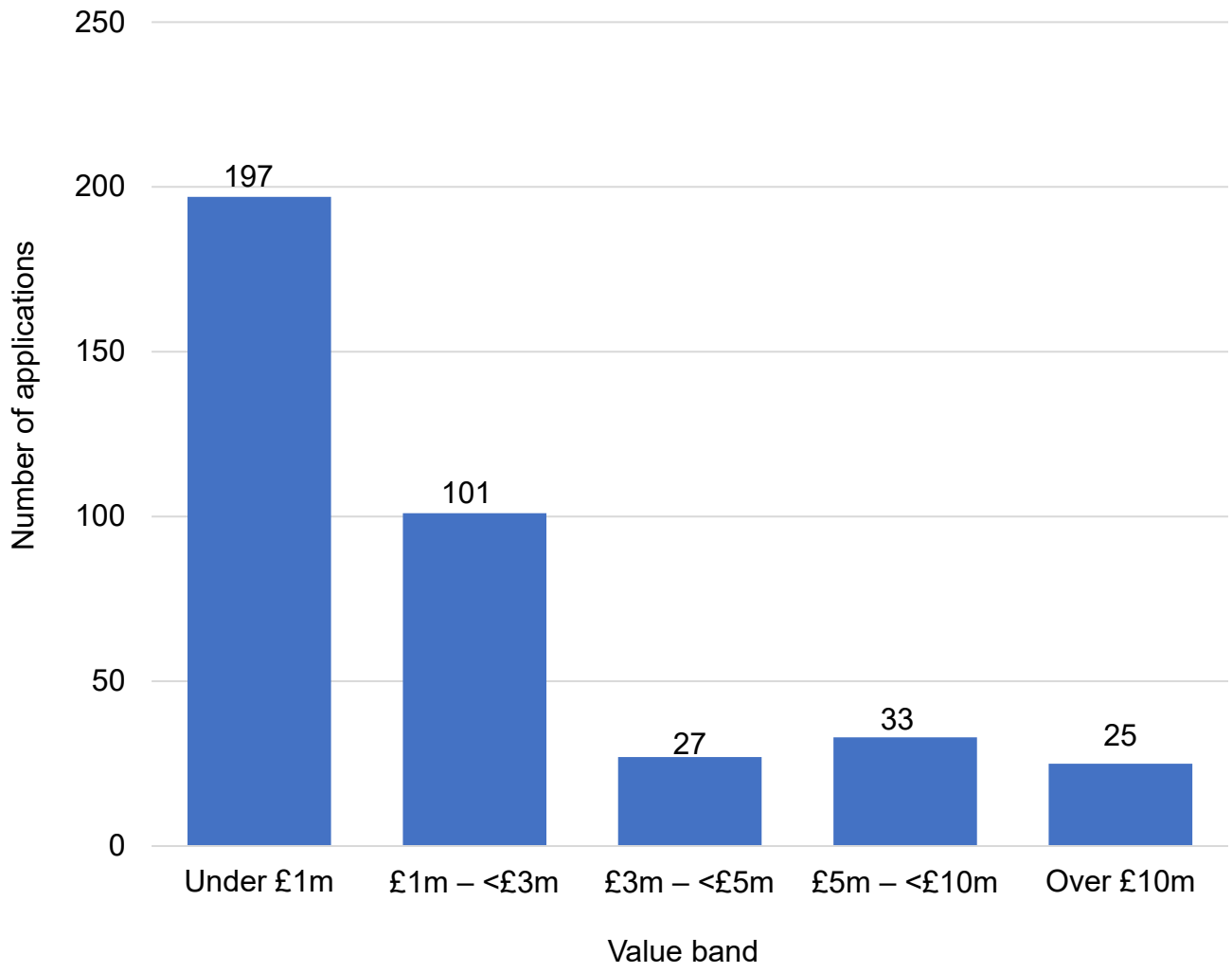


Figure 2: Total number of applications by value band

2.2 Applications by sector

Applicants fall into seven distinct public sector categories: schools (including maintained schools and academies), further and higher education institutions, the NHS, local authorities, central government departments, non-departmental public bodies and emergency services.

This section reports on the number of individual applications rather than the number of organisations which applied.

The schools and academies sub-section also includes schools and academies applied for by local authorities, in which the application solely covered school decarbonisation projects. However, it should be noted that where maintained schools were part of local authority applications covering a range of sites that were not all schools, these are included under the local authority section of Figure 3 and Figure 4.

The largest number of applications came from local authorities, accounting for 41 percent of all applications. The NHS applied for the largest proportion of funding with a total application value of over £549 million, representing over 50 percent of all applications.

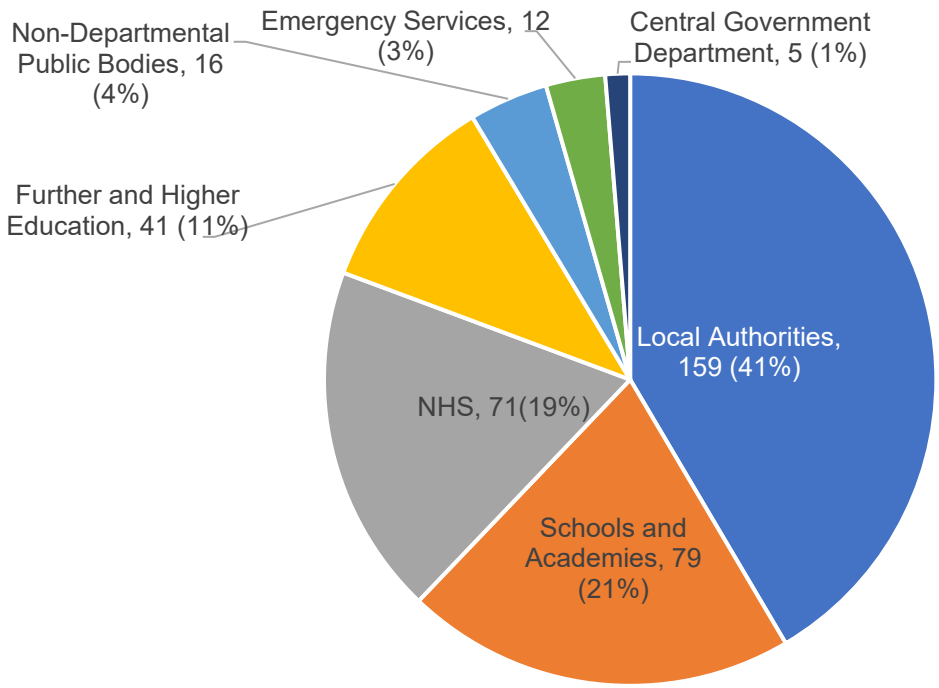


Figure 3: Total number of applications by sector

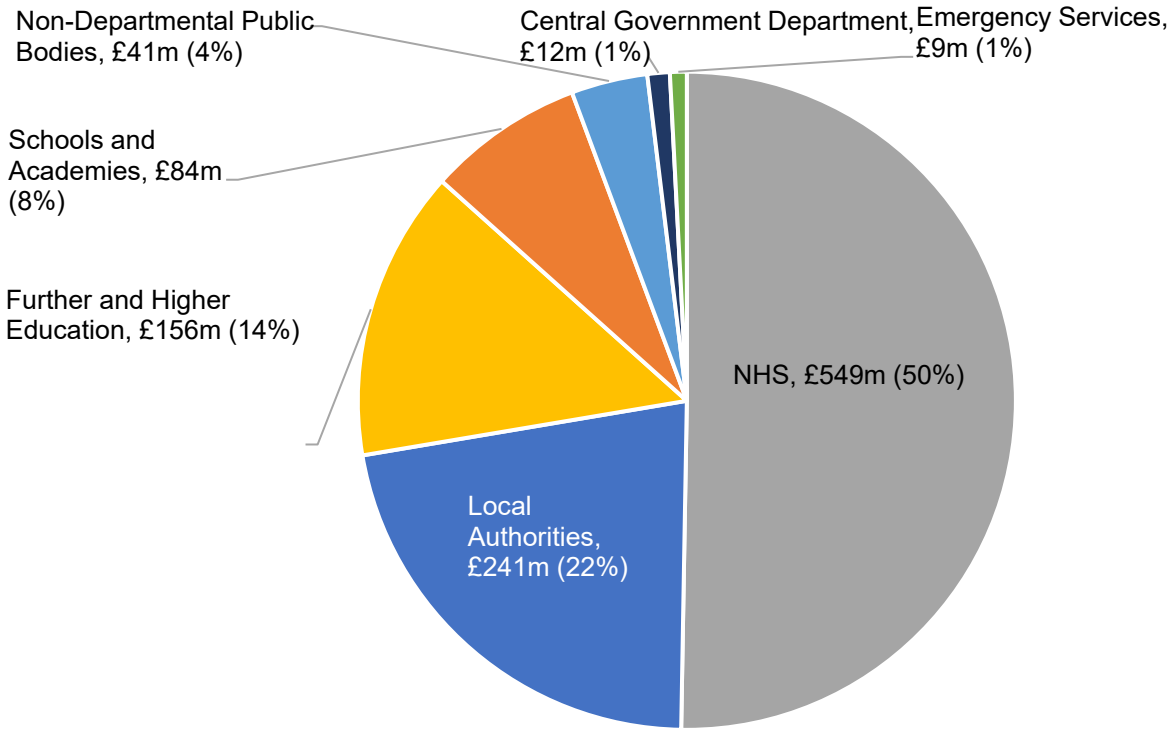


Figure 4: Total value of applications by sector

2.3 Applications by region

Table 1: Number and value of applications across English regions and Wales

Region	Number of applications	Value of applications
North East	19	£82,850,077
Yorkshire and the Humber	54	£174,855,124
North West	46	£160,499,656
East Midlands	30	£68,317,181
West Midlands	26	£119,178,583
East of England	38	£75,991,380
South East	56	£103,522,637
South West	40	£75,468,029
Greater London	70	£222,466,575
Across Regions	3	£6,525,000
Wales	1	£2,500,000
Total	**383**	**£1,092,174,242**

2.4 Applications by funding profile

Phase 4 runs from financial years 2025/26 to 2027/28. Applicants were encouraged to submit funding profiles that best aligned with the delivery needs of their projects.

There were three types of applications:

Single-year applications – Projects to be delivered within a single financial year (2025/26, 2026/27, or 2027/28).

Multi-year applications – Projects spanning two or more consecutive financial years.

Planning year applications – Projects spanning one or two consecutive financial years with a first financial year to plan the project before receiving funding.

The table below shows the number and value of applications by their funding profile.

Table 2: Number and value of applications by funding profile

	Number of applications	Value of applications
Single-Year Projects	50	£29,462,256
Multi-Year Projects	268	£961,001,892
Planning Year Projects	65	£101,710,094
Total	**383**	**£1,092,174,242**

2.5 Carbon cost tiers

To ensure public funding delivers the best value for money, applications to Phase 4 were sorted into three carbon cost tiers. These tiers reflected how cost-effective a project would be in reducing carbon emissions against the application value. The calculation used by assessors divided the amount of grant being applied for by the total carbon savings over the lifetime of the proposed project.

As set out in section 1.5, applications were grouped into three tiers based on their cost-effectiveness: the top 30 percent of all applications were considered to be the most cost-effective, the middle 40 percent were considered to be moderately cost-effective, and the bottom 30 percent were considered to be least cost-effective. Applications were subsequently randomised within each tier and then assessed in order until the sector soft cap for each sub-sector (e.g. health, education, other) was reached.

Figure 5 below shows the total value of applications received by the carbon cost tier they were assigned to, based on the competitiveness of the application. The median application carbon cost (£/tCO2e LT) was £247 for the top tier of applications, £390 for the middle tier and £500 for the bottom tier. Almost 60 percent of the funding applied for came from applications assigned to the top tier.

In all, the top 30 percent of applications had a carbon cost of up to £322/Tco2e LT, the middle tier between £323/Tco2e LT and £466/Tco2e LT, and the bottom tier up to the remaining eligible £510/Tco2e LT.

The data for Figure 5 excludes any applications which breached the £510/Tco2e LT carbon cost limit given they were therefore ineligible for the scheme.

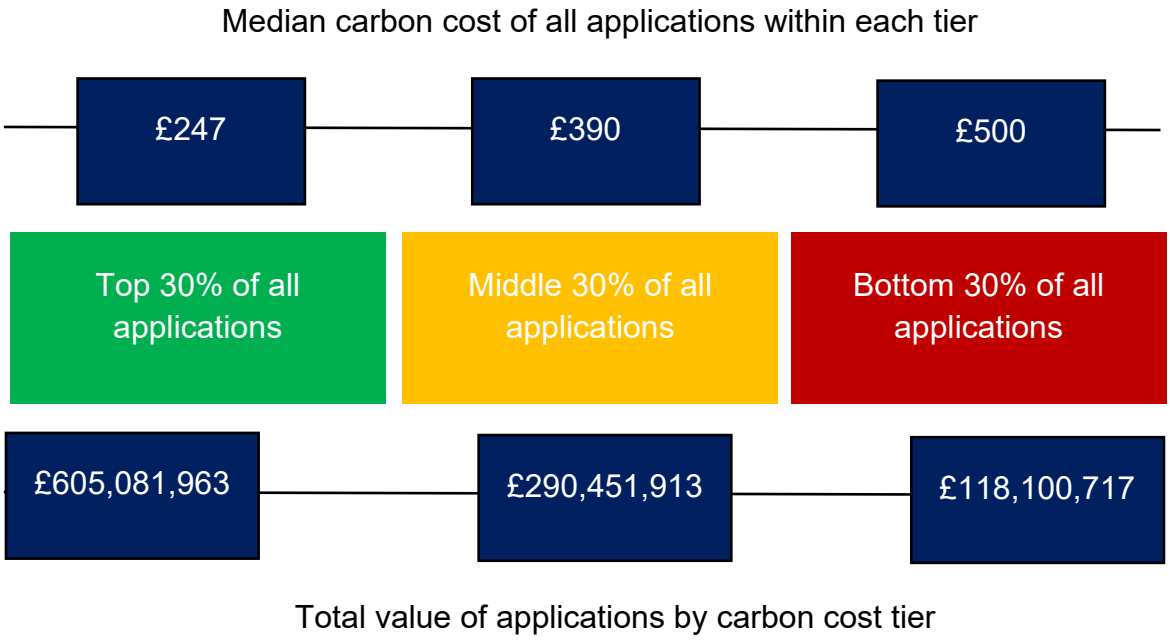


Figure 5: value of applications by carbon cost tier

3. Grants awarded

Phase 4 of the Public Sector Decarbonisation Scheme has allocated £816.6 million in grant funding. A total of 207 public sector organisations have been awarded grants to deliver 245 heat decarbonisation and energy efficiency projects.

3.1 Grants by value

Of the 245 grants awarded, 114 (over 46 percent) were for less than £1 million. These accounted for nearly 6 percent of the total funding awarded. In contrast, 21 grants were valued at £10 million or more, making up nearly 9 percent of the total number of grants awarded but over 52 percent of the total funding. The median grant value was £1,075,000 while the mean value was £3,333,142.

Bath Spa University

Bath Spa University has been awarded £3,000,000 to decarbonise several buildings at its historic Newton Park Campus, which includes the university's main facilities as well as student halls of residence. Most buildings on the campus will be connected to an on-site heating network, while others will have air and ground source heat pumps installed. Solar panels will also be fitted across the campus to provide the university with a source of renewable energy. Additional measures, such as LED lighting, improved wall and roof insulation, and upgraded window glazing will improve the overall energy efficiency of the campus.

(Image by: Bath Spa University)

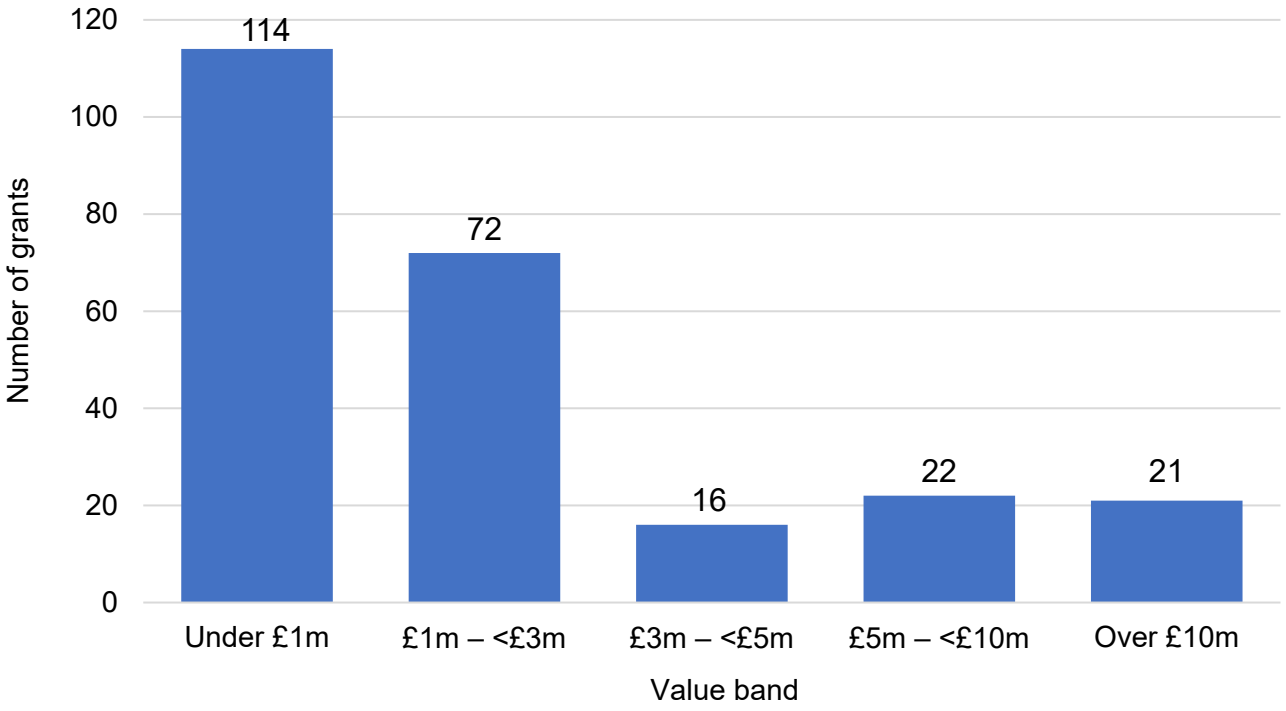


Figure 5: Number of grants by value band

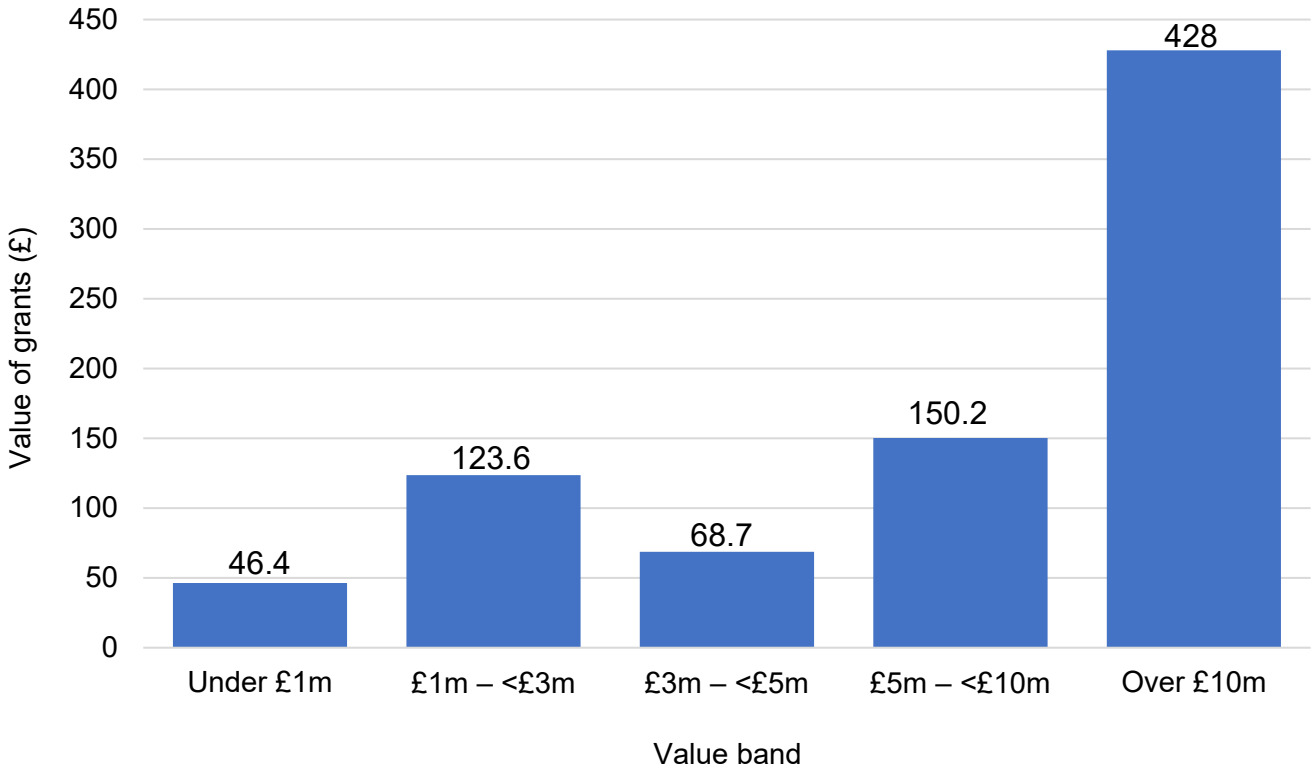


Figure 6: Total value of grants by value band (£m)

3.2 Grants by sector

Grants were awarded across all areas of the public sector, including schools (both maintained and academies), further and higher education institutions, the NHS, local authorities, central government departments, non-departmental public bodies, and emergency services. The NHS received the largest share of funding, with over £408 million invested through 41 grants.

The Schools and Academies sub-section includes schools and academies funded through local authority projects where the funding relates exclusively to school decarbonisation.

Where maintained schools are part of local authority applications covering multiple sites that are not all schools, these are reported under the Local Authority category. Similarly, grants awarded to local authorities that include schools alongside other public sector buildings, such as leisure facilities or administrative offices, are classified under the Local Authority category in Figures 7 and 8.

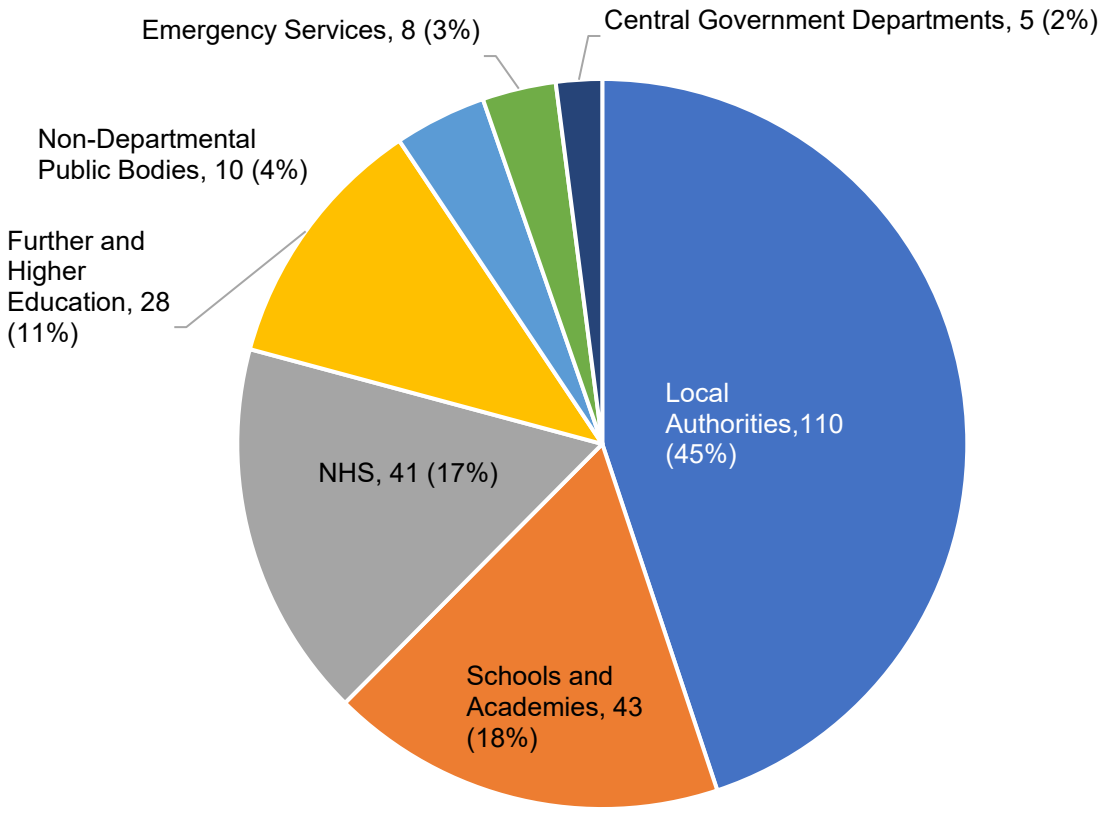


Figure 7: Number of grants awarded by type of public sector

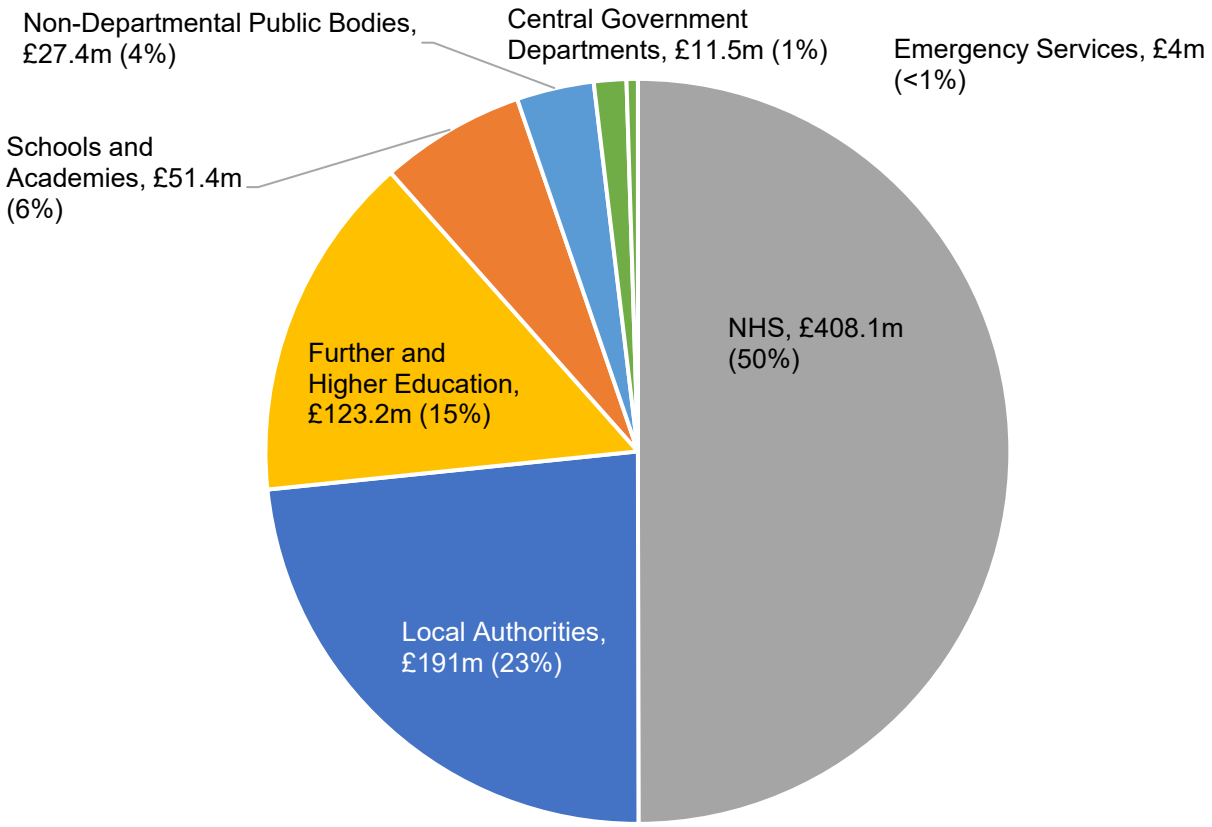


Figure 8: Value of grants awarded by type of public sector

As will be noted by Figure 7 and Figure 8, the health sector exceeded the upper limit of the sector soft cap. This is due to reallocations of funding, in line with the agreement regarding how the sector soft cap principle works.

Tameside and Glossop Integrated Care NHS Foundation Trust

Tameside and Glossop Integrated Care NHS Foundation Trust has been awarded £14.4 million to support the decarbonisation of two sites within Tameside Hospital in Ashton-under-Lyne. This includes the Ladysmith building, which houses clinical services such as respiratory, elderly care, and gastroenterology wards. The existing heating systems at both sites — including a 55-year-old gas boiler from the 1970s (pictured) — will be replaced with a combination of air source and water source heat pumps.

(Image by: Tameside and Glossop Integrated Care NHS Foundation Trust)

3.3 Grants by region

Table 3 shows how many grants were awarded, with the combined value of these grants, for each region.

Table 3: Number and value of grants awarded

Region	Number of grants	Value of grants
North East	14	£78,960,276
Yorkshire and the Humber	33	£111,704,815
North West	30	£131,606,377
East Midlands	21	£80,598,915
West Midlands	19	£89,218,274
East of England	21	£34,153,134
South East	33	£65,127,402
South West	29	£54,280,930
Greater London	43	£167,144,630
Across Regions	1	£1,325,000
Wales	1	£2,500,000
Total	**245**	**£816,619,753**

3.4 Grants by funding profile

Table 4 shows the number and value of projects by their funding profile.

Table 4: Number and value of grants by funding profile

	Number of grants	Value of grants
Single-Year Projects	26	£17,210,497
Multi-Year Projects	175	£723,058,953
Planning Year Projects	44	£76,350,303
Total	**245**	**£816,619,753**

Blackburn Diocesan Board of Education

Blackburn Diocesan Board of Education has been awarded £845,000 to decarbonise the heating systems of four primary schools: Green Haworth Church of England Primary School, Ribchester St Wilfrid's Church of England Primary School, Pilling St John's Church of England Voluntary Aided Primary School and Treales Church of England (Pictured) Primary School, the latter of which is a Grade II listed building. The existing, end-of-life heating systems will be replaced with air source heat pumps at all four schools. In addition, the overall energy efficiency of the buildings will be enhanced through improved loft insulation, draught-proofing, and the installation of new electric panel heaters.

(Image by: Blackburn Diocesan Board of Education)

3.5 Technologies

Phase 4 of the Public Sector Decarbonisation Scheme supported a wide range of heat decarbonisation and energy efficiency measures. Eligible technologies included heat pumps, electric heating, connections to low-carbon heat networks, LED lighting, insulation, glazing, ventilation, and building management systems. Geothermal energy systems were also funded as a low-carbon heating solution, harnessing ground heat through ground source heat pumps. Two geothermal projects received funding in this phase.

Figure 9 below shows the number of projects installing each technology type. This data covers the numbers of projects installing one or more of each measure, rather than the overall number of measures installed. Projects may be installing multiple technologies.

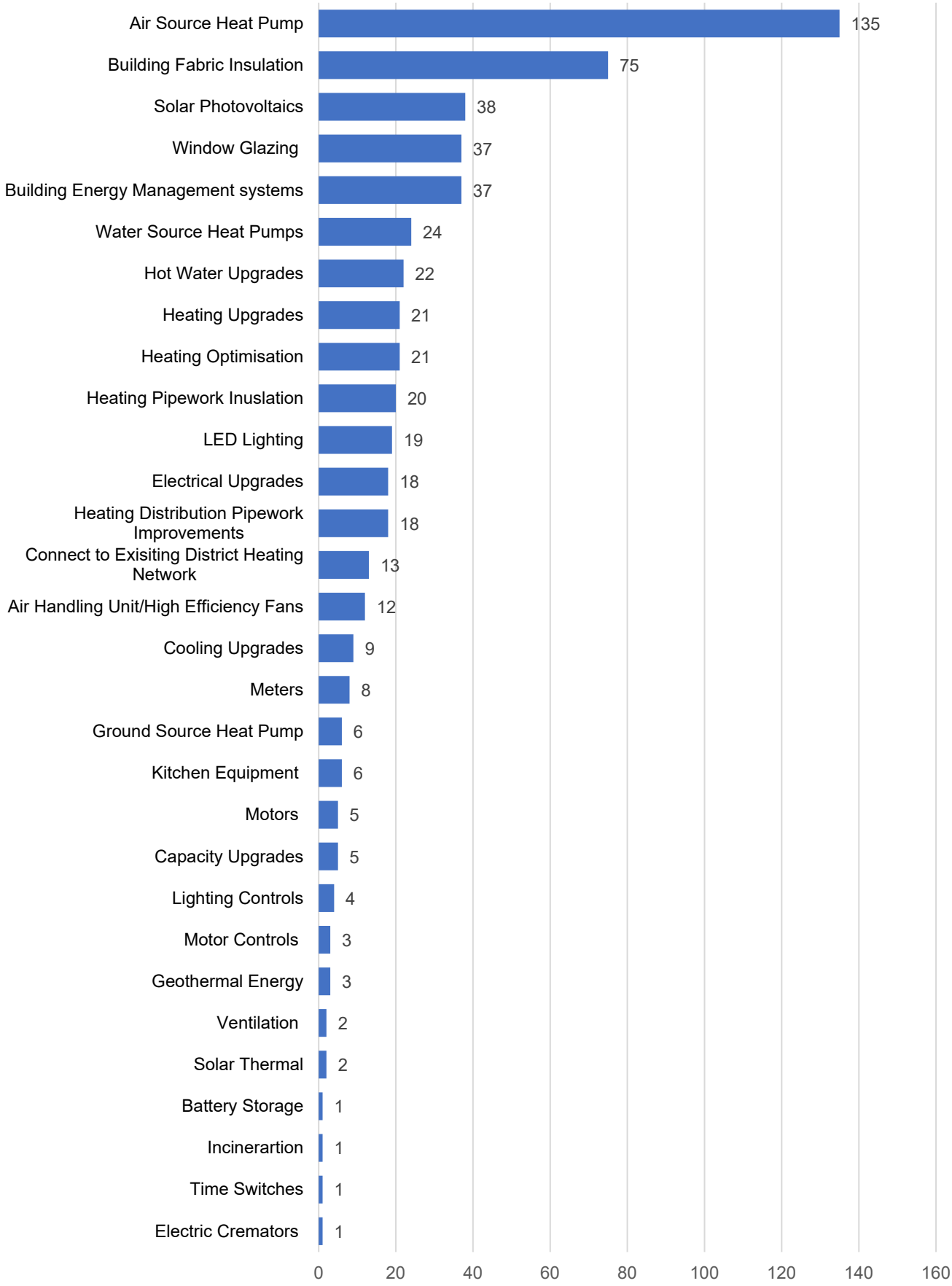


Figure 9: Number of projects installing one or more of each technology

Commonly installed technologies are heat pumps, insulation, solar panels, and LED lighting. Further information on these technologies is included below.

Heat pumps

Heat pumps transfer heat from a renewable source to another location such as the heating system of a building. Heat pumps are categorised by the heat source they use, which can be air, ground or water. Heat pumps obtain heat through pipes embedded in the source, where the heat is absorbed into a fluid. This is passed through a compressor to increase the temperature and then transferred to the heating and hot water systems of the building.

Heat pumps are a very efficient replacement for traditional fossil fuel boilers. However, they produce heat at a lower temperature than traditional boilers and therefore work best when installed in buildings which are well insulated. Heat pumps installed through the Public Sector Decarbonisation Scheme have often been combined with energy efficiency measures to improve the insulation of the building, and with solar panels to provide a renewable source of electricity to power the heat pump.

Air source heat pumps

Air source heat pumps obtain heat from outdoor air and from the heat extracted from water vapour in the air. Many air source heat pumps are reversible units, capable of both heating and cooling buildings.

Ground source heat pumps

Ground source heat pumps extract heat from the ground using pipes buried under the ground outside. The ground remains at an almost constant temperature throughout the year, so the ground is an effective and constant source of heat. Ground source heat pumps require ground suitable for digging and space underground to install the pipes. If space is limited then a borehole can be used to install the pipes vertically, but this increases the cost of installation.

Water source heat pumps

Water source heat pumps extract heat from a body of water, such as a lake, river or stream, through pipes submerged in the body of water. To use a water source heat pump, the building must be near the water source, and the water source must be large enough to produce enough heat for the building. The efficiency of ground and water source heat pumps tends to be more consistent through the winter compared to air source heat pumps. This is because unlike air temperature, ground and water temperatures are not significantly impacted by day-to-day changes in the weather.

Geothermal energy systems

Geothermal energy systems use ground source heat pumps to draw heat from the ground, providing buildings with a reliable and efficient source of low carbon heating all year round.

Solar panels

Solar panels convert the sun's energy into electricity, providing a renewable source of electricity which can be used to power buildings. Solar panels are made from layers of semi-conducting material, which create a flow of electricity when light shines on the material. They do not need direct sunlight to produce electricity, although the brighter the sunlight, the more electricity is generated.

Solar panels are often installed on the roofs of buildings, but they can also be free standing. Solar panels increase the generation of renewable electricity, reducing reliance on electricity produced through fossil fuels. They have often been installed alongside heat pumps, to provide a renewable source of electricity to power them.

Insulation

Insulating buildings helps minimise heat loss through the walls, windows, roofs, doors and floors when it is cold outside. This means that less energy is required to heat them in winter, improving their energy efficiency. The resulting lower electricity usage leads to a reduction in indirect carbon emissions and can also provide cost savings for organisations which can then be re-invested into decarbonisation technologies. Insulation is often installed alongside heat pumps to ensure the building is kept at an appropriate temperature, as heat pumps produce heat at lower temperatures than traditional boilers. Insulation also works to keep buildings cool in summer, reducing cooling loads.

LED lighting

LED lighting is more efficient at converting electricity into light than traditional fluorescent lighting, thereby improving the energy efficiency of a building. LED lighting also has a range of additional benefits, including a long life, ease of control and maintenance and high light quality.

Switching to LED lighting will reduce the energy consumption of a building. Saving energy reduces carbon emissions from electricity production while electricity is still produced from fossil fuels. In addition to this, the reduction in energy usage can provide cost savings for organisations which can then be re-invested into decarbonisation technologies.

4. Conclusion

Phase 4 of the Public Sector Decarbonisation Scheme has allocated over £816 million to 207 public sector organisations, supporting 245 heat decarbonisation and energy efficiency projects. This continues the significant progress made through Phases 1, 2, 3a, 3b, and 3c of the scheme.

Since its launch in 2020, the scheme has played a pivotal role in accelerating decarbonisation across England's public sector. To date, over £3.5 billion has been awarded through more than 1,400 grants, enabling organisations to reduce carbon emissions, enhance energy efficiency, and lower energy costs across their estates. This substantial investment is driving the public sector's transition towards low-carbon heating and energy-efficient solutions, contributing directly to the government's broader Net Zero target.

While there is currently no dedicated funding stream planned to replace the Public Sector Decarbonisation Scheme, officials will continue to monitor developments and provide updates as new opportunities arise. The Carbon Budget and Growth Delivery Plan and the Warm Homes Plan are the initial steps in laying out the Government's decarbonisation journey.

This publication is available from:
www.gov.uk/government/publications/public-sector-decarbonisation-scheme-phase-4

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