



Department for
Energy Security
& Net Zero



Public Sector Decarbonisation Scheme

Phase 3c Summary Report



November 2024

Public Sector Decarbonisation Scheme

Phase 3c Summary Report

This report provides an overview of applications received and grants awarded through Phase 3c of the Public Sector Decarbonisation Scheme.

A list of all projects funded in Phase 3c of the Public Sector Decarbonisation Scheme, and short summaries of these, can be found on the Public Sector Decarbonisation Scheme gov.uk page.

Title image: **London Borough of Hackney**

London Borough of Hackney has been awarded £12,882,934 for two projects to decarbonise 10 schools, 2 community centres, a leisure centre, a nursing home and the Grade II listed Clissold House. The existing heating systems across the sites will be replaced by air source and water source heat pumps.

Image by: London Borough of Hackney (Grade II listed Clissold House)



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Executive Summary

Phase 3c of the Public Sector Decarbonisation Scheme builds on the £1.075 billion investment provided by Phases 1 and 2 of the Scheme and continues the support for public sector bodies to transition to low carbon heat and energy efficiency measures in their buildings. Phase 3c, like Phases 3b, 3a and 2, has a stronger focus on heat decarbonisation than Phase 1, in line with the need to reduce direct emissions from public sector buildings to meet the UK's net zero goals. Applicants were required to look at the overall energy usage in their buildings and combine energy efficiency measures with the most appropriate low carbon heating measures, thereby encouraging them to consider the whole building in their decarbonisation measures.

Phase 3c of the Public Sector Decarbonisation Scheme is the final sub-phase of Phase 3, which has made available £1.8 billion from 2022/23 to 2025/26. Originally making available £1.425 billion of grant funding over the financial years 2022/23 to 2024/25, additional funding was announced in December 2023 to make Phase 3c a multi-year scheme covering 2025/26 too. £611 million of funding has been awarded through the third Phase 3 application window, Phase 3c.

For Phase 3c, 443 applications were submitted with a combined value of over £1.3 billion. 244 projects were awarded funding, to be delivered by 209 public sector organisations.

Monitoring and evaluation of Phase 3c is being undertaken to check progress against planned milestones, to understand how well the scheme is delivering on its objectives, and to analyse how the scheme has performed against its intended impacts. The evaluation will also provide clarity as to how the scheme can evolve to continue delivering decarbonisation of the public sector and enhance its ability to support our wider net zero target.

1. Background

The Public Sector Decarbonisation Scheme provides grants for public sector bodies to fund heat decarbonisation and energy efficiency measures.

Phase 3 of the Public Sector Decarbonisation Scheme is making available £1.8 billion of grant funding over the financial years 2022/23 to 2025/26. The funding has been allocated through multiple application windows, with Phase 3c being the third and final instalment of this phase. The scheme is managed by the Department for Energy Security and Net Zero (DESNZ) and is delivered by Salix Finance, a DESNZ non-departmental public body.

Phase 3 is part of over £2.8 billion total government investment on upgrading public sector buildings between the 2020/21 and 2025/26 financial years.

Phase 3 of the Public Sector Decarbonisation Scheme follows Phases 1 and 2, which provided £1.075 billion in grants over the financial years 2020/21 and 2021/22. Phase 3a, the first Phase 3 application window, launched in October 2021 and is providing funding over the financial years 2022/23 to 2024/25. The second Phase 3 application window, Phase 3b, opened and closed to applications in October 2022 and is providing funding over the financial years 2023/24 to 2024/25.

Phase 3c closed to applications in November 2023. This report covers Phase 3c only. The summary reports for Phases 1, 2, 3a and 3b are available on the Public Sector Decarbonisation Scheme gov.uk page.

Durham County Council

Durham County Council has been awarded £854,573 for three projects to decarbonise Bishop Auckland Town Hall, Cotsford Infant School, and Durham Pathways, an adult daycare centre providing therapeutic services for adults with disabilities. Air source heat pumps will be installed in all buildings and solar panels will be installed on two sites. A variety of energy efficiency works will be undertaken across the buildings, including the fitting of secondary glazing, dry wall lining, roof insulation, point-of-use hot water heaters and LED lighting.

Image by: Durham County Council



1.1 Policy Drivers

The Public Sector Decarbonisation Scheme supports delivery of the UK's ambitious goal to become net zero by 2050 and the Net Zero Strategy goal to reduce direct emissions from public sector buildings by at least 50 percent by 2032, and by 75 percent by 2037, compared to a 2017 baseline. The scheme will reduce carbon emissions from the public sector, contributing to meeting Carbon Budgets 4, 5 and 6. Funding for Phase 3 of the Public Sector Decarbonisation Scheme for the financial years 2022/23 to 2024/25 was confirmed through the Spending Review 2021 settlement.

1.2 Scheme Objectives

The objectives of Phase 3 of the Public Sector Decarbonisation Scheme are to:

- Support the transition to low carbon heating in public sector buildings
- Support the aim of reducing emissions from public sector buildings by 75% by 2037, compared to a 2017 baseline, as set out in the Net Zero and Heat and Buildings strategies.

1.3 Eligibility

Phase 3c, like Phases 3b and 3a, was open to public sector bodies in England, including central government departments and their non-departmental public bodies, the NHS, schools (including maintained schools and academies), emergency services, further and higher education institutions and local authorities. Central government departments operating in areas of reserved policy (i.e., not devolved to Scottish or Welsh Governments or the Northern Ireland Executive) were also eligible to apply for funding for estates located anywhere within the UK.

To support the focus on heat decarbonisation, applicants were again required to focus on replacing end-of-life fossil fuel heating systems with low carbon heating systems such as heat pumps and connections to low carbon heat networks. All applicants were required to include at least one measure to decarbonise part of or all the heating within a building with a low carbon heating system. Applicants were also required to take a whole building approach to decarbonising their buildings, looking at the overall energy usage and combining energy efficiency measures with the most appropriate low carbon heating measures.

Like Phase 3b of the scheme, eligible measures could fall into four categories. It was compulsory to include a low carbon heating measure that reduces direct carbon emissions, such as heat pumps, electric heating or district heating. Secondly, other measures that reduce direct carbon emissions could be included, such as solar thermal, building fabric upgrades, piping insulation, mechanical ventilation, and heat recovery. Measures that reduce indirect carbon emissions (typically electricity savings) such as LED lighting and energy efficient ventilation were also eligible. Finally, measures that do not save carbon but enable the

installation of measures that do, such as electrical infrastructure upgrades, metering and energy storage could also be included within an application.

Funding was provided for the marginal costs of installing a low carbon heating system (i.e., the additional costs on top of the business-as-usual costs of replacing the existing fossil fuel heating system on a like-for-like basis).

Bradford College

Bradford College has been awarded £2,656,876 to connect the David Hockney building and Advanced Technology Centre to the Bradford heat network. Improvements will also be made to the hot water distribution system and heating pipework.

Christopher Malish, Bradford College Vice Principal

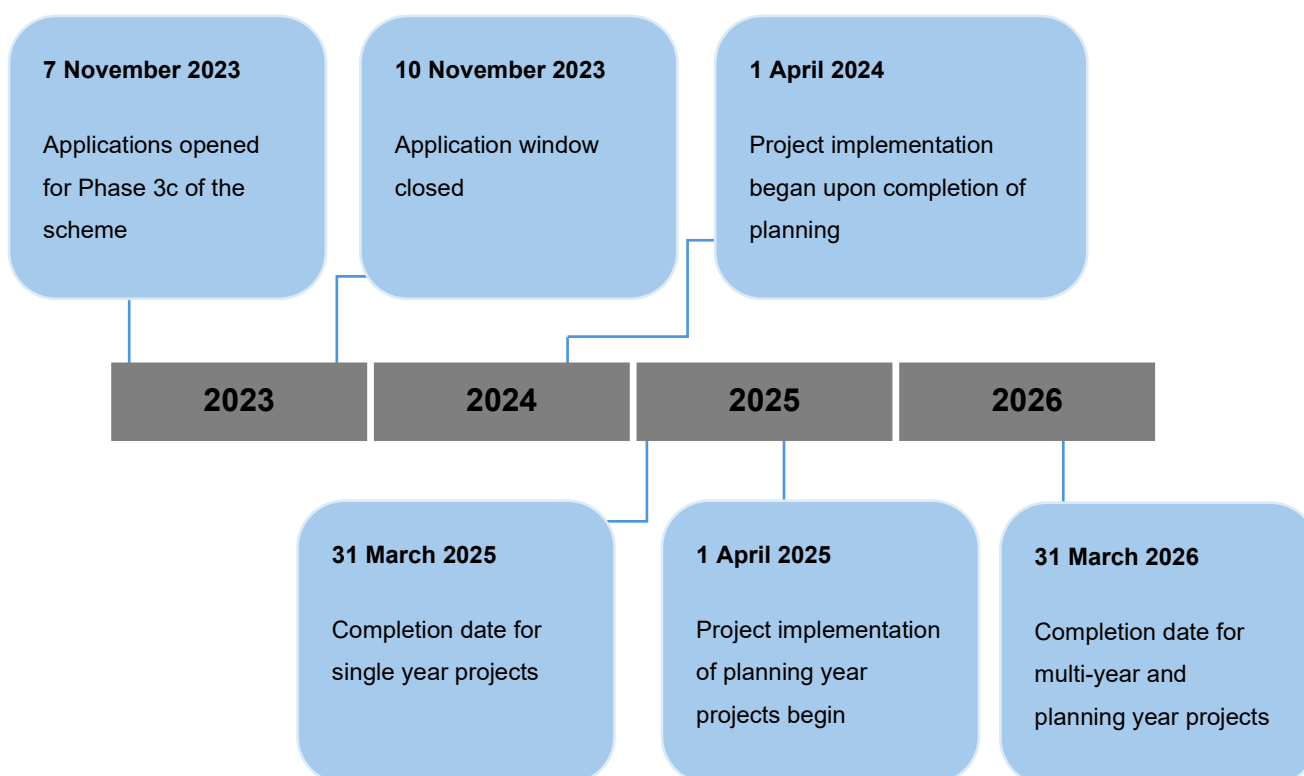
Finance & Corporate Services, said: *“Bradford College is committed to reducing its carbon footprint. This latest funding will be a huge boost to our decarbonisation strategy and supports our goal of creating aspirational and sustainable facilities in the heart of Bradford. Our vision is to create a better future for all through education and training. This transformative investment supports the wider city centre development and showcases Bradford as being at the heart of an environmental and socially responsible region.”*

Image by: Bradford College



1.4 Timeline

Phase 3c opened for applications on 7 November 2023 and closed on 10 November 2023. The short length of this application window was the result of an aborted portal opening in October 2023, with prospective applicants being given a clear opening date well before the rescheduled opening of the application portal. All single-year projects are required to complete by 31 March 2025, with multi-year projects and planning year projects required to complete by 31 March 2026.



1.5 Changes to the Scheme

Phase 3c of the scheme was largely similar to Phase 3b. The success of policy changes made in Phase 3b ensured they were retained for Phase 3c, notably the introduction of planning year applications and the introduction of sector soft caps across health, education, and all remaining sectors including local authorities. Once again, an upper limit to all sector caps was set at 35% of total phase 3c budget. Under this approach, the maximum funding a sector could be allocated was 35% and no sector's allocated funding could be lower than 30% of total Phase 3c funding. However, like Phase 3b these caps are soft, which allows unallocated funding to be redistributed to other sectors.

1.6 Budget

Originally, Phase 3 of the Public Sector Decarbonisation Scheme sought to make available £1.425 billion of grant funding over the financial years 2022/23 to 2024/25 through multiple application windows. Phase 3c was envisaged to accept applications for single year funding only.

In December 2023, additional funding was announced for public sector decarbonisation which enabled Phase 3c to run across two financial years, 2024/25 and 2025/26. As a result, £1.8 billion of grant funding has now been allocated between 2022/23 and 2025/26 for Phase 3.

Phase 3c is the third and final of the Phase 3 application windows, providing £611 million of grant funding. There was no minimum or maximum value for applications.

Funding is provided to grant recipients using Section 98 of the Natural Environment and Rural Communities Act 2006 and is paid to grant recipients by Salix Finance Ltd, the non-departmental public body responsible for delivering the Public Sector Decarbonisation Scheme on behalf of DESNZ.

1.7 Monitoring and Evaluation

Monitoring of Phase 3c is being undertaken to check progress against planned milestones. Salix Finance Limited, who delivers the scheme on behalf of Government, collects data from grant recipients through monthly monitoring reports for each scheme phase. These reports cover, but are not limited to, financial monitoring, project risk reporting and overall progression towards key milestones such as procurement, design completion, completion of works on site and project completion. Monitoring data will also provide additional evidence for the scheme evaluation.

2. Applications to the scheme

Applications were assessed against the eligibility criteria set out in the scheme guidance. Applications that met the eligibility criteria (summarised in Section 1.3) were assessed in the order in which they were received. Applications to this phase of the scheme closed in November 2023 and the scheme received a total of 443 applications, with an overall value of £1.3 billion being requested across two financial years (2024/25 and 2025/26).

2.1 Applications by value

No minimum or maximum value was set for applications. Applications ranged in value from £26,529 to £46.2 million. 6.2 percent of applications were for less than £1 million, while 48.7 percent of applications were for over £10 million.

The median value of all applications was £1,170,000 and the average (mean) application value was £2,982,898.

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

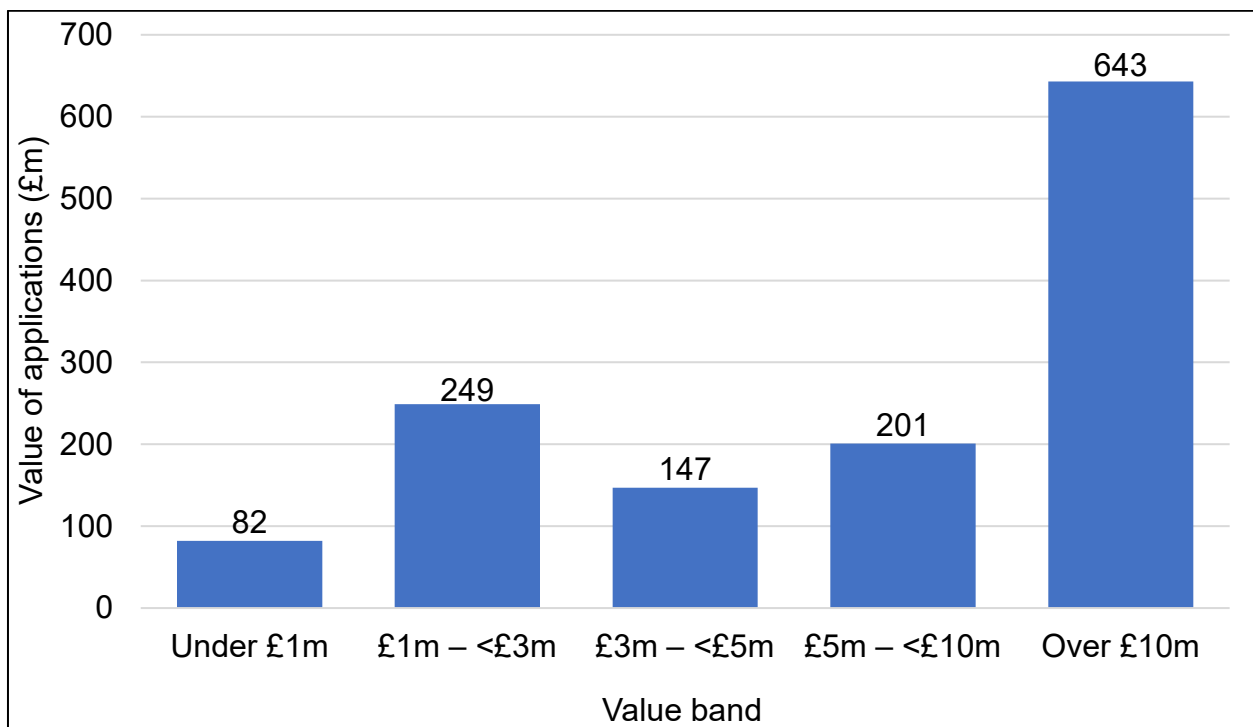


Figure 1: Total value of applications by value band

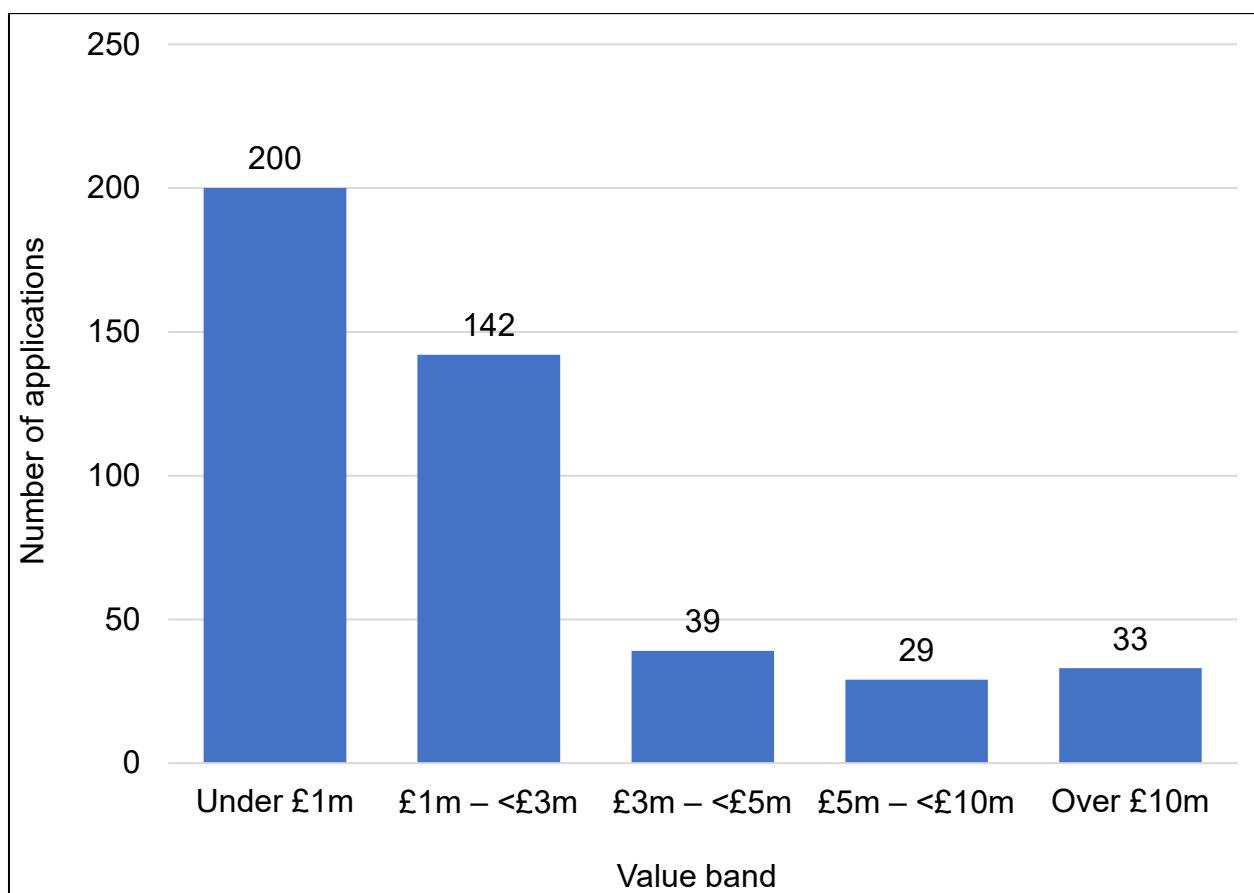


Figure 2: Total number of applications by value band

2.2 Applications by sector

Applicants can be grouped into seven different public sector categories: schools (including maintained schools and academies), further and higher education institutions, NHS, local authorities, central government, non-departmental public bodies and emergency services. There were no limits on the number of applications an organisation could submit, resulting in some organisations submitting multiple applications.

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 31 percent of all applications. The NHS applied for the largest proportion of funding with a total application value of over £676 million, representing 51 percent of the value of all applications.

Figure 3 shows the number of applications by type of public sector organisation. Figure 4 shows the combined value of applications by type of public sector organisation.

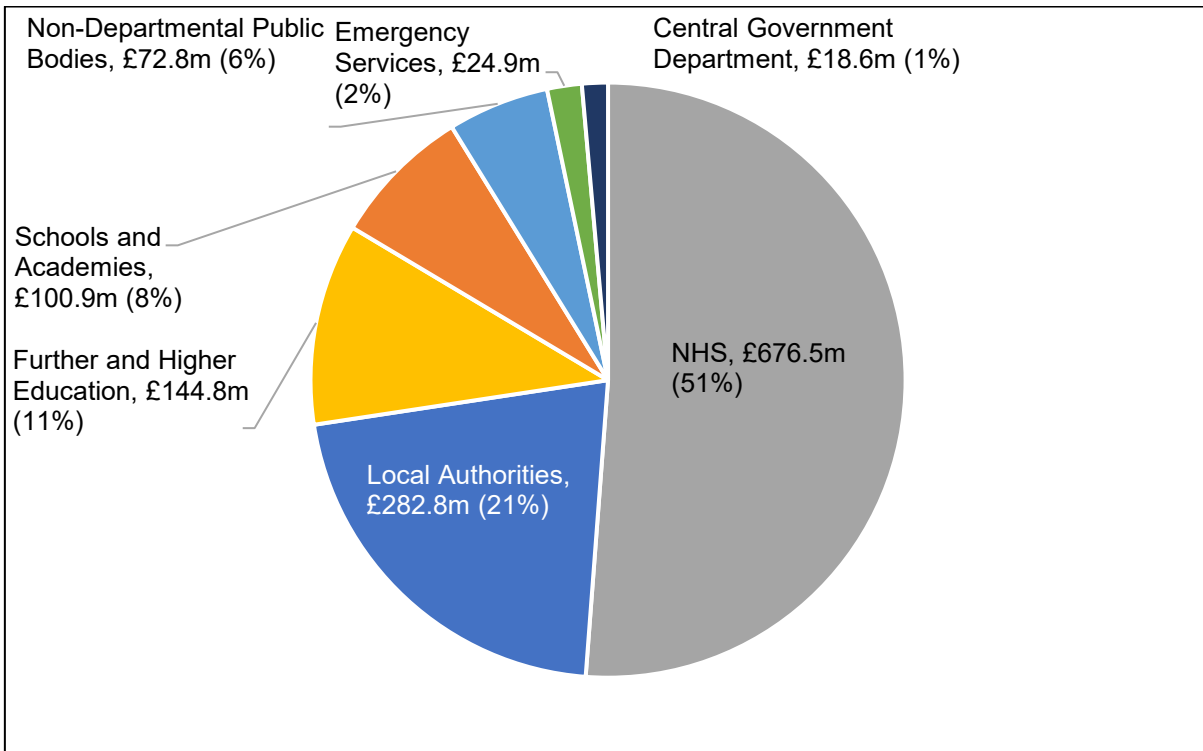


Figure 3: Total value of applications by sector

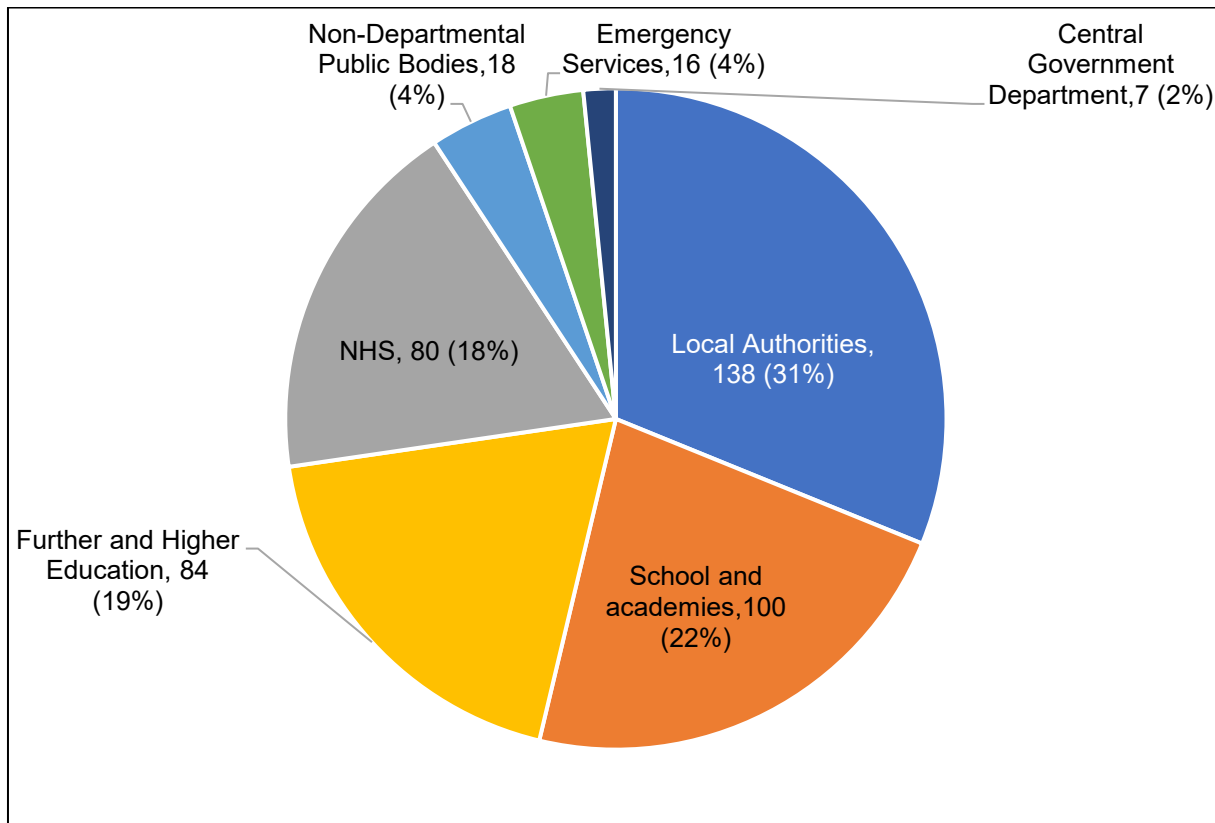


Figure 4: Total number of applications by sector

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	29	£116,918,939
Yorkshire and the Humber	45	£156,198,406
North West	39	£169,714,380
East Midlands	40	£84,517,001
West Midlands	36	£137,353,536
East of England	37	£89,287,052
South East	70	£112,405,424
South West	54	£88,178,835
Greater London	85	£295,076,701
Across regions	6	£5,536,015
Wales	2	£3,747,532
Total	443	£1,321,423,800

2.4 Applications by funding profile

Phase 3c is a two-year scheme with funding available for projects with spend in one or two financial years. Applicants were encouraged to apply with a funding profile which best suited the delivery of their project. There were three types of applications:

- Single year applications: Applications for projects which started spending in financial year 2024/25 that must complete by 31 March 2025.
- Multi-year applications: Applications for projects which started spending in financial year 2024/25 that must complete by 31 March 2026.

- Planning year applications: Applications for projects with spend in 2025/26 only, using 2024/25 as a planning year, to develop and design their projects. These must also be completed by 31 March 2026.

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	124	£107,340,846
Multi-year projects	271	£1,113,893,867
Planning year projects	48	£100,189,087
Total	443	£1,321,423,800

3. Grants awarded

Phase 3c of the Public Sector Decarbonisation Scheme has allocated £611 million in grants. These grants were awarded to 244 projects, to be delivered by 209 different organisations.

3.1 Grants by value

Under half of the 244 grants awarded, 112, were for less than £1 million. These make up 46 percent of all grants awarded but represent approximately only 8 percent of all funding. Eleven grants are for £10 million or more, making up 5 percent of grants awarded but 34 percent of all funding. The median value of all grants is £1.17 million and the average (mean) grant value is just over £2.5 million.

Figure 5 below shows the number of grants by value band and figure 6 shows the distribution of the overall values of grants by value band.

Surrey County Council

Surrey County Council has been awarded £5,051,460 for three projects to support the decarbonisation of 19 sites, including 6 libraries, 4 nursing homes, 2 community centres, 5 schools, Guildford Fire Station, and the council's



headquarters in Woodhatch Place, Reigate. Air source heat pumps will be installed and a variety of energy efficiency improvements will be undertaken, including the fitting of centralised lighting control systems, dry wall lining, wall, roof and loft insulation, LED lighting, double glazing, draught proofing and secondary glazing.

Image by: Surrey County Council

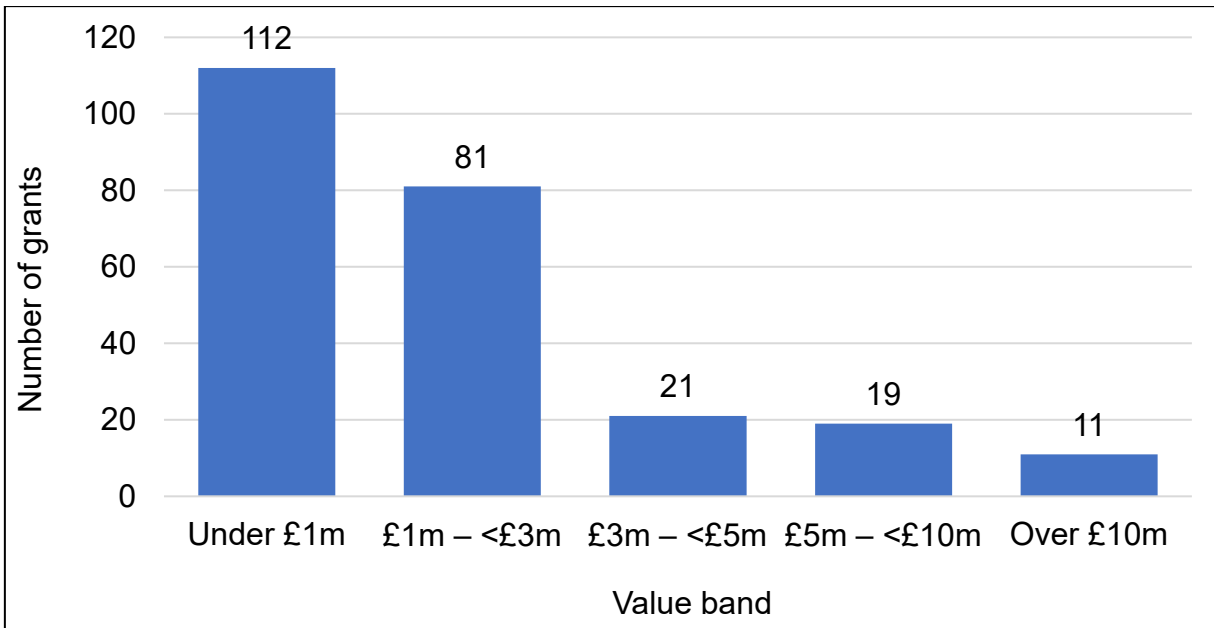


Figure 5: Number of grants by value band

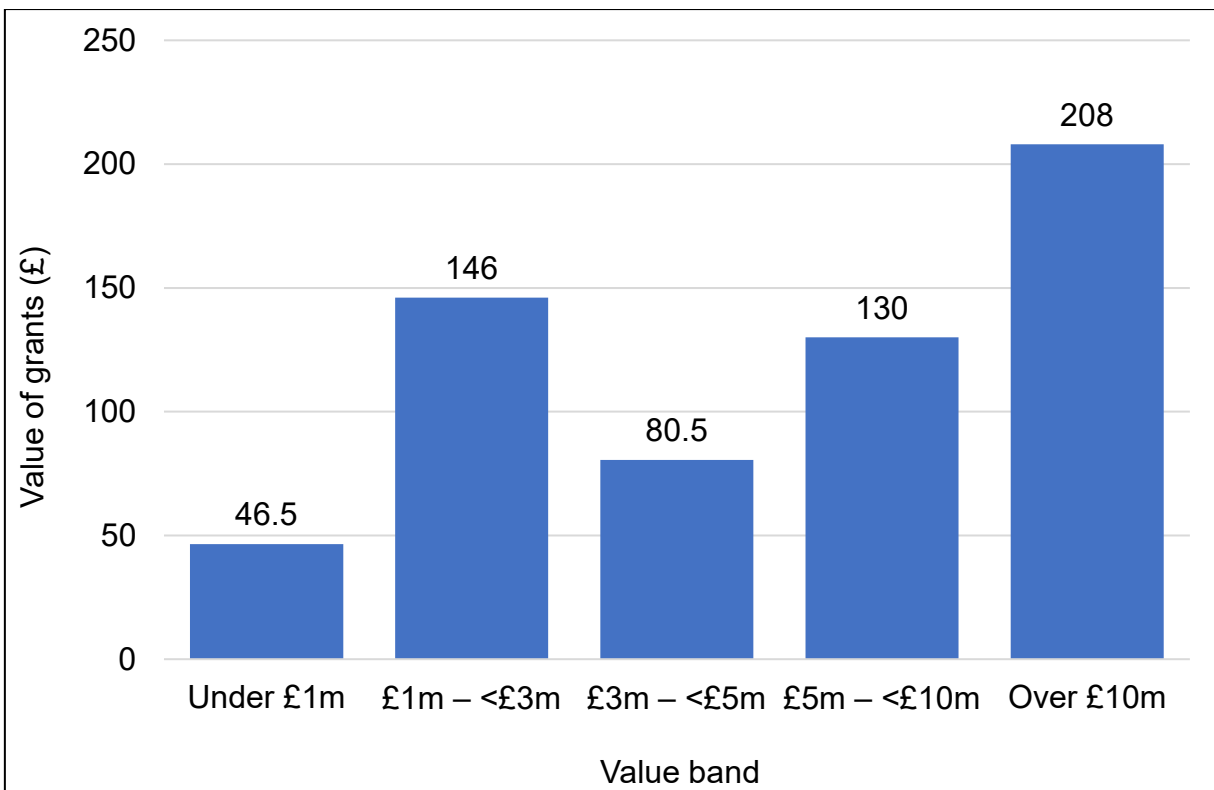


Figure 6: Total value of grants by value band

3.2 Grants by sector

Grants were awarded across all categories of the public sector: schools (including maintained schools and academies), further and higher education, NHS, local authorities, central government, non-departmental public bodies, and emergency services. The NHS received the largest proportion of funding, with over £241 million being invested through 26 grants.

The health sector exceeded the upper limit of the sector soft cap at 39 percent due to reallocations of funding, in part due to some projects abandoning, in line with the agreement regarding how the sector soft cap principle works.

The Schools and Academies sub-section also includes schools and academies funded from projects 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. Grants for local authorities which include schools and educational facilities alongside other public sector buildings, for example leisure facilities and administrative offices, are classified in the 'local authority' category of Figure 7 and Figure 8.

Figure 7 shows the combined number of grants awarded for each type of public sector organisation. Figure 8 shows the combined value of grants awarded for each type of public sector organisation.

Humberside Police

Humberside Police has been awarded £2,652,099 to decarbonise the heating systems at Clough Road Police Station and their Priory Road Police Headquarters. Air source heat pumps and an electric boiler will be installed at Priory Road Headquarters and solar panels will be fitted on the roof of the building. An electric boiler will be installed at Clough Road Police Station. Energy efficiency improvements will be made through the installation of cavity wall insulation, smart meters, double glazing, and new LED lighting. The incoming electricity power supply in both buildings will be upgraded.

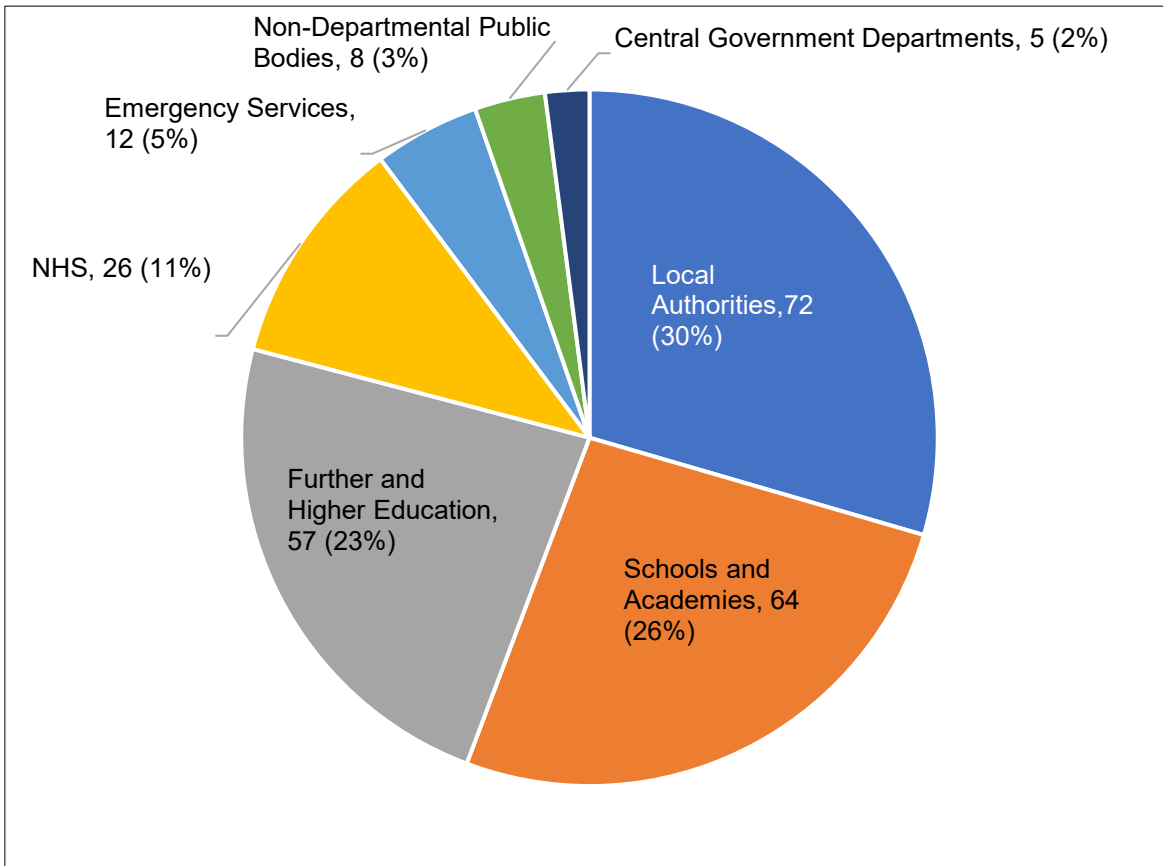


Figure 7: Number of grants awarded by type of public sector

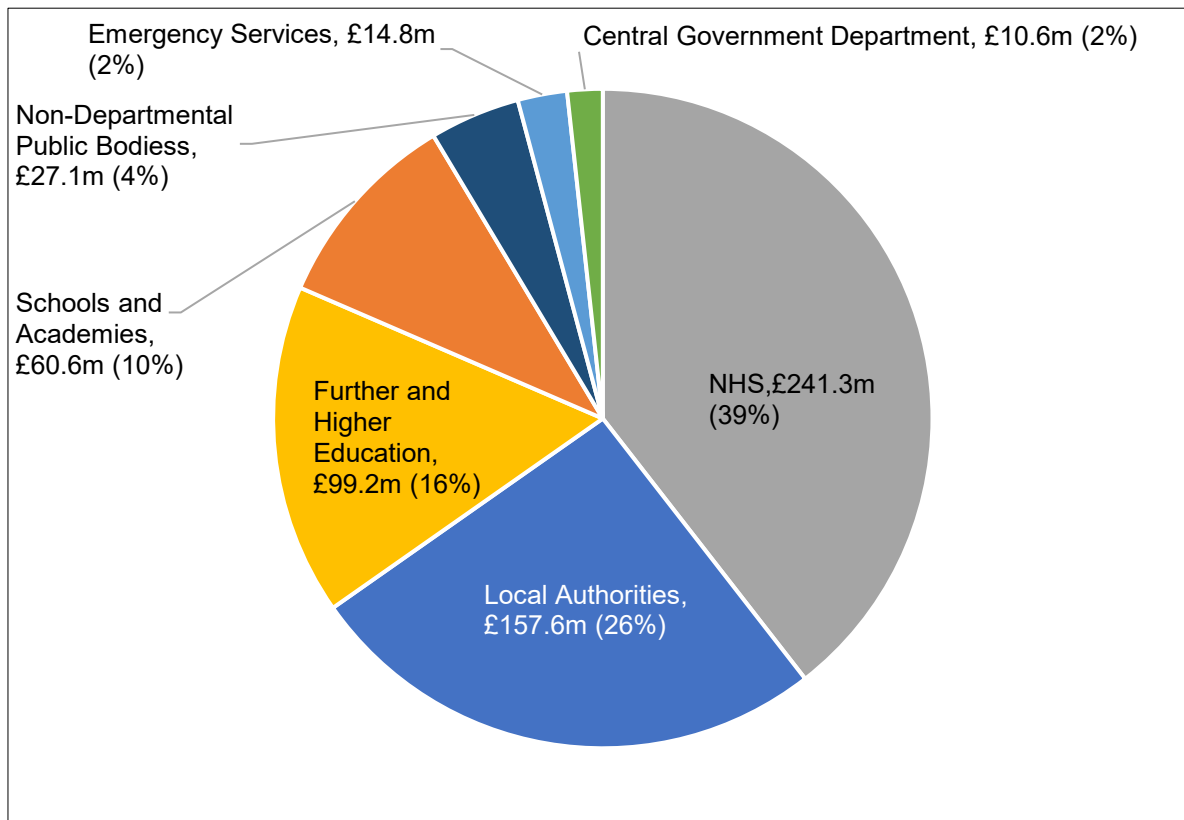


Figure 8: Value of grants awarded by type of public sector

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	15	£48,297,209
Yorkshire and the Humber	24	£67,824,687
North West	21	£53,396,273
East Midlands	19	£27,450,447
West Midlands	19	£83,924,060
East of England	20	£46,931,539
South East	47	£87,051,702
South West	28	£45,573,742
Greater London	45	£145,142,875
Across regions	5	£4,468,738
Wales	1	£1,194,856
Total	244	£611,256,128

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	57	£38,372,470
Multi-year projects	154	£533,093,570
Planning year projects	33	£39,790,088
Total	244	£611,256,128

Medway NHS Foundation Trust

Medway NHS Foundation Trust has been awarded £25,886,516 to install heat decarbonisation and energy efficiency measures at Medway Maritime Hospital. Heat pumps will be installed in 11 buildings and solar panels will be installed across multiple buildings. Additionally, double glazing will be installed in three blocks.

Image by: Medway NHS Foundation Trust



3.5 Technologies

A wide range of technologies were eligible for funding through Phase 3c of the Public Sector Decarbonisation Scheme. Eligible heat decarbonisation measures included heat pumps, electric heating and connections to low carbon heat networks. Technologies which support future heat decarbonisation were also eligible - including upgrading electrical infrastructure, metering and battery storage. A wide range of energy efficiency measures were eligible for funding including LED lighting, insulation, glazing, ventilation and building management systems.

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.

South Warwickshire NHS Foundation Trust

South Warwickshire NHS Foundation Trust has been awarded £6,149,168 to support the decarbonisation of three hospitals sites: Warwick Hospital, Leamington Spa Hospital and Stratford Hospital. Four buildings at Warwick Hospital will be



connected to the onsite heat network, and air source heat pumps will be installed at Leamington Spa and Stratford Hospitals. Solar panels will also be fitted across all sites, and the energy efficiency of the hospitals will be improved through heating pipework insulation, wall and loft insulation and building energy management systems upgrades. Sophie Gilkes, the Trust's Chief Strategy Officer and Executive Lead for Sustainability said: "The grant will enable our Trust to extend the new low-carbon energy heating network already installed into areas of Warwick Hospital following the initial funding and expand the scheme to Leamington and Stratford Hospitals. These projects will save 660 tonnes of CO₂e emissions - 10% of South Warwickshire NHS Foundation Trust's estate-related carbon emissions."

Image by: South Warwickshire NHS Foundation Trust

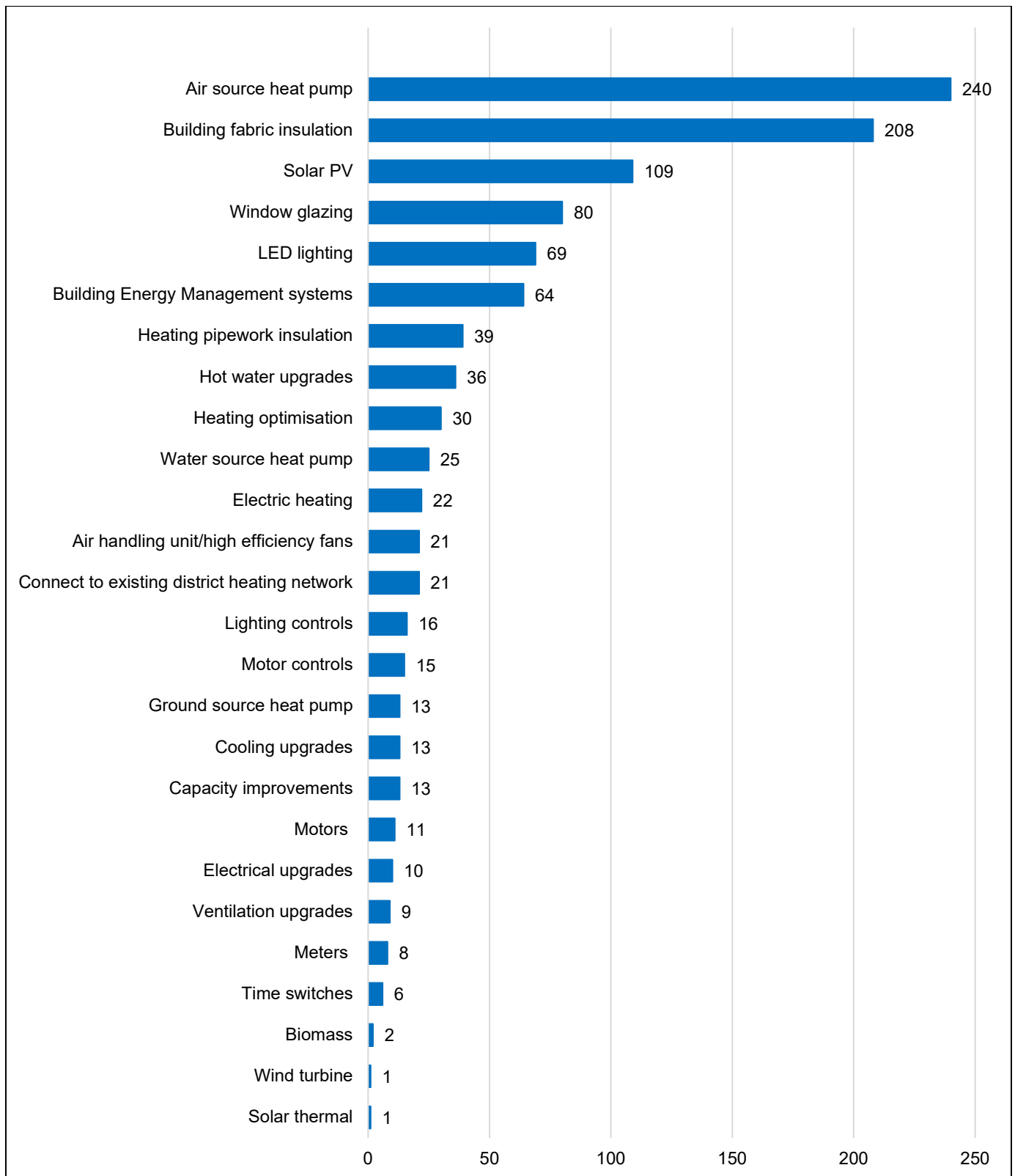


Figure 9: Number of projects installing one or more of each technology

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.

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 3c of the Public Sector Decarbonisation Scheme has allocated £611 million to 209 public sector organisations for 244 heat decarbonisation and energy efficiency projects. This builds on the progress made in decarbonising the public sector through Phases 1, 2, 3a and 3b of the scheme and paves the way for further decarbonisation of the sector.

The next round of funding, Phase 4, will invest in further projects and continue to support the aim of reducing direct emissions from public sector buildings by 75 percent by 2037.

Phase 4 of the scheme was originally confirmed in February 2024 and the full suite of scheme guidance and further details about changes to the application process was published in September 2024. The application portal for Phase 4 opened on 9 October 2024, with a closing date of 25 November 2024.



Image by: London Borough of Hackney (Queensbridge School)

This publication is available from: <https://www.gov.uk/government/publications/public-sector-decarbonisation-scheme-phase-3>

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