



National Audit Office



REPORT

Environmental Sustainability Overview

Department for Education

SESSION 2022-23
28 JUNE 2023
HC 1514



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Environmental Sustainability Overview

Department for Education

Report by the Comptroller and Auditor General

Ordered by the House of Commons
to be printed on 26 June 2023

This report has been prepared under Section 6 of the
National Audit Act 1983 for presentation to the House
of Commons in accordance with Section 9 of the Act

Gareth Davies
Comptroller and Auditor General
National Audit Office

20 June 2023



This report assesses the approach taken by the Department for Education to environmental sustainability.

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Key facts

143

commitments in Department for Education's (DfE's) Climate Change and Sustainability Strategy from 2022 to 2030

37%

of public sector emissions come from education settings (state primary and secondary schools and universities)

6

number of schools capable of operating at net zero carbon, with 28 more in construction as part of the School Rebuilding Programme

500

number of schools that DfE expects will be net zero carbon in operation after completion of the DfE's School Rebuilding Programme, equivalent to 2% of the school estate. Local authorities and other responsible bodies are directly responsible for a larger proportion of the estate outside this programme

10,710

number of schools with a significant chance of flooding at least once in 75 years (at April 2022)

£170 million

the funding allocated to DfE's Sustainability and Climate Change portfolio between 2022-23 and 2024-25

28%

of £584 million public sector decarbonisation scheme funding allocated by the Department for Energy Security & Net Zero, up to 31 May 2023, to educational establishments

Summary

1 This report gives an overview of the approach taken by the Department for Education (DfE) to environmental sustainability. We have produced it in response to a request from the Environmental Audit Committee (EAC). This is the seventh in a series of sustainability overviews we have produced, each of which examines how different parts of government fulfil their sustainability remit. Our overviews cover areas of activity common to all government departments that impact on sustainability (see Appendix One). They also take account of the individual circumstances of each department.

2 In April 2022, DfE published an ambitious Sustainability and Climate Change Strategy (2022–2030). This overview considers DfE’s work to implement its strategy in its first year. The strategy has a broad scope: it applies to DfE, its agencies and public bodies and the education and children’s services systems in England – early years, schools, further education, higher education, and children’s social care. It sets out DfE’s plans to meet obligations to improve the environment and its policies to improve the sustainability of education services and promote learning about and understanding of environmental sustainability and climate change. It makes 143 commitments in five broad areas: the education estate, green skills and careers, climate education, operations and supply chain, and international influence.

3 This overview covers:

- DfE’s approach to delivering and overseeing its sustainability strategy (Part One);
- progress in the first year of its strategy and in meeting environmental obligations (Part Two); and
- DfE’s capacity to influence sustainable practices in new and existing schools, as well as its understanding of climate risk and energy efficiency of the school sector more generally (Part Three).

4 DfE is responsible for the school system in England and is ultimately accountable for securing value for money from the funding it provides for schools, via a devolved system of responsibility. The school estate consists of around 21,600 maintained schools funded by DfE, of which more than 11,400 are run by local authorities and more than 10,200 are academies run by single or multi-academy trusts. These responsible bodies oversee the day-to-day running of schools and decide how funding is used, within broad parameters set by DfE. Education is the public sector’s largest emitter of carbon from buildings: 37% of public sector emissions, comprising 13% from state primary schools, 11% from state secondary schools and 13% from universities.

Key findings

Setting up to deliver environmental commitments and obligations

5 DfE created a Sustainability and Climate Change Unit (SCCU) in April 2021 to coordinate and lead its work on environmental sustainability. SCCU has raised the profile of sustainability within DfE and provided a focal point and impetus for DfE to act on key environmental risks. SCCU is responsible for a mixture of coordination and assurance work across DfE and for delivering key programmes under the strategy. Since April 2022, SCCU has taken steps to bring new and existing work within a portfolio, organise resources and secure some funding to start projects (paragraphs 1.7 to 1.10).

6 One year after DfE published its strategy, its accountability arrangements for delivery are still in development. We have seen limited evidence of oversight for the portfolio and strategy above SCCU, which puts sustainability at risk of being deprioritised or traded-off when making decisions. Sustainability is not yet embedded fully in departmental governance as DfE has not yet finalised responsibilities and accountability for strategy commitments across the whole department. DfE created SCCU to coordinate a range of interventions within a sustainability portfolio, as multiple teams across DfE are responsible for delivering the strategy. SCCU has established relationships with policy teams (such as capital, skills, qualifications), and is procuring contracts to deliver its central sustainability initiatives. DfE is in the early stages of developing a full programme plan (paragraphs 1.9, 1.14 and 1.15 and Figure 6).

Funding and resourcing the strategy

7 The cross-cutting nature of the strategy means that DfE has no visibility of overall spending. By February 2023, DfE had allocated £170 million for 2022-23 to 2024-25 to sustainability work. SCCU monitors the use of this funding. Spending towards the strategy elsewhere in DfE is not visible to SCCU; there are significant school capital funding streams of more than £2 billion intended to improve the condition of the school estate that can, but do not have to be, used in a way that also improves sustainability (paragraphs 1.16, 1.17 and 3.11 to 3.13, and Figures 4 and 10).

8 There is a mismatch between the funding allocated for this work and the ambitions of the strategy. DfE has not fully costed its strategy. In 2022-23, SCCU's revenue funding reduced by 15%. This reduced its staffing, contributing to delays, and degraded SCCU's delivery confidence in some projects. Where funding was approved for projects, DfE has had to scale them back due to lack of staff following cross-government resource constraints. DfE descope two projects to align with what it could deliver, including the Resilient Schools Programme, which is designed to identify low-cost ways to increase the resilience to climate change of the existing estate. In August 2022, DfE reduced the project's budget from £90.5 million to £4.6 million. DfE is working to secure additional funding to deliver its strategy commitments beyond 2025 (paragraphs 1.16, 1.18, 1.19 and 3.9).

Delivery progress

9 DfE has only recently established a means of monitoring whether the strategy is on track and can be delivered. Until late April 2023, there was limited visibility of the totality of strategy commitments and how they were going. We were not able to easily assess what progress had been made. From 2023, SCCU brought together milestones for its central sustainability initiatives. During our audit, SCCU started to collate a complete, up-to-date record of all the commitments in its strategy and it is in the process of developing an approach to measuring benefits. At May 2023, it considered 18 of 19 commitments marked for delivery in 2022 and nine of 47 marked for delivery in 2023 as complete (paragraphs 2.2 to 2.4).

10 SCCU has made good progress in delivering its own sustainability initiatives and in supporting DfE's compliance with statutory requirements. SCCU has secured funding and has announced, or is in discussion with, contractors to deliver: a National Education Nature Park, Climate Action Awards, a Standardised Emissions Framework and an International Green Skills conference. SCCU has worked with the Department for Energy Security & Net Zero (DESNZ), its predecessor body the Department for Business, Energy & Industrial Strategy (BEIS) and the Department for Environment, Food & Rural Affairs (Defra) to support DfE and to address risks to meeting some of its statutory obligations. SCCU is also leading work on how DfE will manage benefits from, and understand the impacts of, work towards the strategy (paragraphs 1.10, 2.5 to 2.10 and Figures 5 and 6).

Understanding the sustainability of the school estate and how to improve it

11 DfE lacks a clear, national picture of the sustainability position of the school estate or the risks that climate change poses to the sector. As a result, it cannot yet strategically target funding or sustainability interventions to schools. The data DfE does have are not complete or up-to-date, particularly for old schools. It has started work to improve data coverage to enable it to monitor and target funding better. It plans to standardise emissions data and reporting; develop a climate risk framework to assess the risks to schools from flooding, overheating and water scarcity; and set emissions targets for the sector by 2025 (paragraphs 3.7, 3.8 and 3.33, and Figure 7).

12 DfE is piloting innovative ways to reduce emissions and increase energy efficiency in school buildings, in order to assess which initiatives justify future investment. DfE is using an 'innovate, test and invest' approach with available funding to learn what does or does not work and what is worth scaling up with the money it has available. It is running a series of pilots to test approaches to operating schools at zero carbon; improve energy efficiency, and resilience to the effects of climate change; and use ultra-low carbon construction methods. From 2025, DfE expects to invest in scaling up and rolling out successful approaches to the education sector. However, its approach to evaluation and assessing benefits is still developing (paragraphs 1.10 and 3.9, and Figures 8 and 9).

Influencing environmental sustainability in schools

13 DfE recognises that there are safety risks within the school estate, so it has focused capital funding on improving the condition of school buildings, with sustainability integrated where there is an opportunity to do so. Capital funding for schools is aimed at improving the condition and safety of school buildings. There is no specific requirement for schools to spend funding on sustainability measures although improving the condition of buildings can often improve energy efficiency. Many school buildings are in poor condition and consequently schools, academy trusts and local authorities find it difficult to prioritise sustainability improvements when using capital funding. DfE provided a one-off £447 million 'energy efficiency' allocation in December 2022 but schools can decide to spend it on other capital projects. DfE has worked with DESNZ and its predecessor BEIS to improve the availability of other funding to decarbonise schools, for example, ensuring schools receive funding from the Public Sector Decarbonisation Scheme in line with their share of public sector emissions. As a result, DESNZ set an intention to increase the share of grants going to schools in the latest funding round. DESNZ told us that the education sector submitted enough funding bids to get at least 30% of the total £595 million potentially on offer (paragraphs 3.11 to 3.13, 3.15 to 3.17, and Figures 10 and 11).

14 DfE has incorporated sustainability requirements into some elements of capital funding, including new school buildings. DfE is standardising construction of centrally funded new-build schools, so that these buildings are net zero in operation. It created a standardised net zero building specification in 2021, which is compulsory for all new school buildings contracted by DfE. As at June 2023, there were six net zero schools, with 28 in construction as part of the School Rebuilding Programme. DfE intends to rebuild 500 schools by 2030, 2% of the school estate. It also started factoring environmental sustainability into its allocation of school condition funding from 2022-23 by requiring schools to demonstrate consideration of a sustainable approach in project bids. DfE strengthened its requirements for 2023-24 so schools have to also provide evidence of works that lead to greater environmental sustainability (paragraphs 3.14, 3.20 and 3.21).

15 Responsible bodies and schools are not required to meet any minimum environmental standards for their estate. However, all work must comply with building regulations, which include energy efficiency. Many local authorities and schools have made environmental commitments independently of national government. Local authorities that rebuild schools are encouraged to use the DfE's standards as they surpass building regulations in terms of energy efficiency, but they are not mandatory for local authority-led projects. Similarly, sustainable buildings standards only apply to refurbishment of existing buildings in limited circumstances, such as under DfE's School Rebuilding Programme. It is usually for responsible bodies (local authorities and academy trusts) to decide if work to improve the condition of school buildings is done in a way that contributes to improved sustainability or reduced emissions (paragraphs 3.3, 3.11 and 3.20 to 3.22).

16 DfE has started to encourage schools and responsible bodies to change to sustainable practices through guidance or direct engagement but this work is at an early stage. SCCU launched two initiatives in May 2023 to improve school awareness and engagement with sustainability issues. For example, DfE plans for all education settings to have a sustainability lead, who will own a Climate Action Plan (to include activities, procurement, adaptation and decarbonisation plans), although these measures are voluntary. DfE also provides schools with some sustainability guidance, incorporating messages around energy efficiency and water use into estates guidance. DfE currently engages with the sector via stakeholder groups and newsletters but recognises it has more work to do to convince and advise schools about how to be more sustainable (paragraphs 2.9, 3.22, 3.25 and 3.26).

17 DfE does not know what contribution its current schemes will have on reducing total carbon emissions across the sector but they will likely not bring it close to achieving the 75% reduction which government is targeting across the wider public sector. Government has a target to reduce direct emissions from public sector buildings by 75% by 2037, compared with a 2017 baseline. Education settings (schools and universities) produce 37% of public sector carbon emissions. DfE plans to introduce emissions targets from 2025, recognising that it has to take action as a significant emitter within the public sector. Current sustainability schemes are fairly small-scale and DfE has not secured funding for the strategy beyond 2025. DfE estimates that at its current rate of progress, 80% of the existing estate will not be retrofitted by 2050 so it needs to identify ways to accelerate change. It is now exploring options to fund improvement on a wider scale, for example by aggregating schools together to get funding for solar panels. DfE undertook some exploratory analysis in January 2023 to test the potential opportunity from investment in retrofitting solar panels and energy efficiency measures for all state schools. This suggested that the cost might be in the region of several billion pounds, many times its current annual dedicated funding on sustainability measures, with potential savings and income net of maintenance costs slightly higher than costs but with significant variation between schools depending on factors such as size, condition and location (paragraphs 1.3, 3.9, 3.32 to 3.36 and Figure 13).

18 DfE is still working to develop a good understanding of the climate risks that schools are exposed to. DfE does not currently understand how the risks from flood, overheating and water scarcity, areas of growing risk that could disrupt learning or cause damage, apply to the education estate. DfE accepts that the resilience of the education estate is an area where it is currently exposed given the lack of sufficient investment. It knows that 10,710 schools are at significant chance of flooding, which could be anything from a few inches to a few feet of water and expects this to rise to at least 13,662 schools by the 2050s. DfE is developing a draft risk assessment framework for climate adaptation to enable it to target its interventions to reduce schools' vulnerability although, as at April 2023, progress was slower than expected. It plans to assess the risks of flood, water scarcity and overheating to education services and publish this assessment by January 2024. This builds on DfE's submission to government's third National Adaptation Programme, a detailed assessment of how DfE plans to reduce risks to education services from flood, overheating and water scarcity (paragraphs 3.29 to 3.31).

Conclusion

19 DfE is one year into its ambitious eight-year Sustainability and Climate Change Strategy. Its efforts so far have been in setting up internal structures and processes to enable it to manage, monitor and deliver a range of initiatives. It is still developing governance and accountability measures, and raising awareness of its aims both within DfE and the sector more generally.

20 DfE is taking steps to incorporate sustainability into its new build schools but net zero schools delivered through the School Rebuilding Programme will only represent 2% of the estate when complete. To make the most of the money it has available, DfE is testing ways to reduce emissions and adapt the schools at highest risk of harm from climate change. These measures will not make a contribution to achieving government's overall goals that is in proportion to the scale of emissions from the school estate unless they are rolled out at a much larger scale, and relatively soon. As it stands there is no plan in place for achieving the scale of decarbonisation across the education sector that is needed for DfE to make a proportionate contribution to government's targets.

21 DfE is planning to secure additional funding for this work, but it does not yet have a clear view of the sector's current sustainability position, what interventions offer the best value for money and what it will cost to decarbonise the school estate. Given the uncertainty around the additional funding that is likely to be available, it is important that DfE works with the sector to share evidence for what works, to encourage schools to use their capital and maintenance funds to make improvements in a way that also supports government's sustainability objectives.

Recommendations

22 As DfE continues to implement its strategy, it will need to take steps to ensure it gets the maximum return from the funding available. We recommend that DfE should:

- a** **by the end of 2023, agree department-wide governance and accountability arrangements for the strategy**, particularly for areas of DfE without dedicated sustainability governance. This should include the relative responsibilities of the SCCU and other areas of DfE in relation to strategy commitments;
- b** **by April 2024, two years into the strategy, implement a plan to measure benefits from the strategy**;
- c** **develop a clear evidence base of what sustainability measures work in schools and where to target its funding within the school estate as part of its preparations for the next Spending Review**. It needs to define metrics for assessing pilots (to include user feedback and cost-effectiveness) and improve data so that it has a better understanding of schools most vulnerable to climate risk;
- d** **once an emissions target is in place for the education sector, publish a decarbonisation plan** to define progress towards net zero for its estates;
- e** **align resources to the strategy, making sure the relationship between funding in place and ambitions is realistic**. This will also include prioritising the strategic risks to the estate including climate/environmental risk and re-assessing what is possible should it not receive the funding it hopes for; and
- f** **share evidence, examples and learning with the sector so that schools can make informed decisions about what sustainability interventions would work best for their circumstances**.