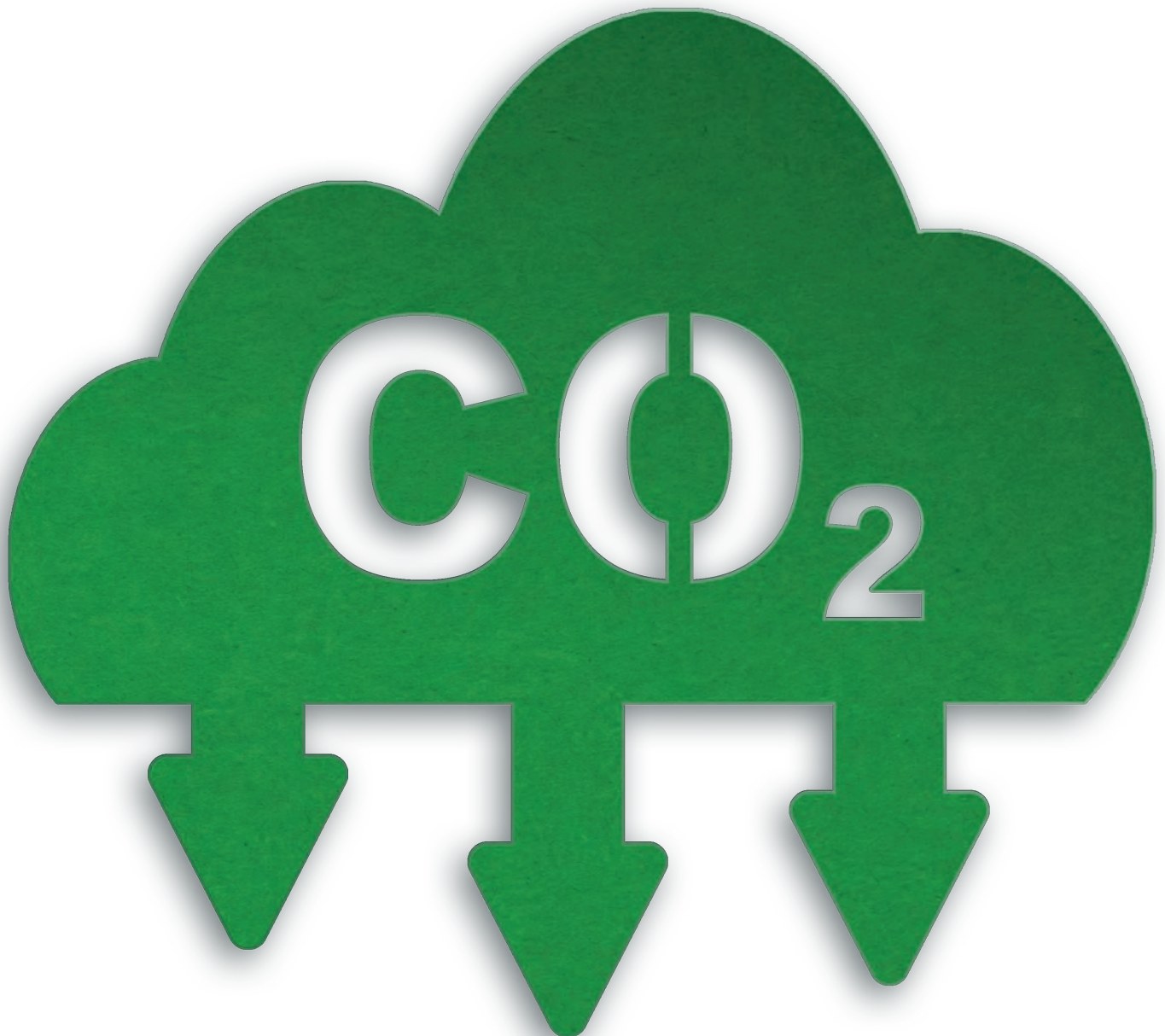




# ARE YOUR BUILDINGS READY FOR DECARBONISATION?



Harj Chana



From 2025, the Department for Education will be implementing emission-reduction targets for all education settings, and by the same date, schools will be required to have 'nominated a sustainability lead and put in place a climate action plan'. Harj Chana, Senior Building Surveyor at Surveyors to Education, outlines the funding available to help your school become decarbonisation ready. ▶



There have never been better reasons to put sustainability at the top of a school's priority list: doing the right thing for the planet, pupil pressure and the prospect of replacing old fossil-fuel boilers so that warmer classrooms are cheaper to heat are just some of the reasons for starters. But it's not easy.

Decarbonisation is a case in point. It refers to the elimination of CO<sub>2</sub> emissions, and it is government policy, with a target to cut direct emissions in the public sector by 75 per cent by 2037. More than a third of these emissions come from schools, colleges and universities, and the Department for Education (DfE) is about to begin holding them to account.

School estates departments will need a sustainability leadership structure, but many are underdeveloped and wrestling with short-term problems around urgent repairs. What's more, there is limited funding available for decarbonisation measures, with significant hurdles to overcome to obtain it.

This is why schools and multi-academy trusts (MATs) should take a strategic approach so that they can make the preparations required on their estates to be decarbonisation ready, be able to secure government funding for the often heavy investment involved, and then successfully replace fossil fuels with low-carbon technology such as an air-source or ground-source heat pump.

The good news is that the Public Sector Decarbonisation Scheme (PSDS) provides grants towards capital projects that help MATs and schools in England reduce their CO<sub>2</sub> emissions from heating, cutting fossil-fuel emissions as well as making buildings more comfortable and cheaper to keep warm. Specifically, there are funds to replace 'end-of-life' fossil-fuel systems (such as gas boilers) and install environmentally friendly heat sources instead, although schools must be prepared to make a contribution towards costs.

The key, however, is that schools and MATs will only qualify for funding if their existing buildings have suitable insulation, pipework and radiators that can be adapted or added to an air-source heat pump system. They must take what government funding agency Salix calls a 'whole-building approach' and assess their fabric first. If creaking radiators date from the 1970s and pipes are leaking, heat pumps won't work effectively and may struggle to heat buildings. Salix assesses this as part of the application, and PSDS funding will be refused if this approach is not taken.

### Step by step

Schools and MATs should make their plans in stages because many would need an impossibly large capital spend to ready their estate and install carbon-saving technologies all in one go. A primary school may only have one boiler serving the site, but secondary schools may have multiple boilers, each of which would be a distinct project under a PSDS application. The path to take is to begin by investing in the estate's thermal fabric, such as a new roof designed to meet the latest thermal requirements and double-glazed windows: these will be essential in keeping heat in and cutting costs because air-source or ground-source heat pumps generally produce less heat than conventional radiators.

PSDS guidance sets out that estate leaders should first identify energy consumption (heating and cooling, hot water and electrical loads), then identify areas of energy wastage (uninsulated walls, roofs and windows, draughts and poor/lack of heating control systems), and then take action to reduce wastage. It is advisable to split the costs for these thermal fabric improvements over the next one, two or three years, and only then apply for PSDS funding for a heat pump. (Note: the fund offers grants with no cap per application, but MATs and schools must contribute the like-for-like costs, i.e. the price of replacing an old boiler with a new conventional one).

Working with specialist surveyors such as Surveyors to Education (S2e) supports school leaders in identifying areas of improvement. The company can carry out a fabric survey that is coordinated alongside a school or MAT-wide planned maintenance programme and can advise on using School Condition Allowance or Condition

Improvement Fund money, or contributions from the local authority. Costs may include planning permission fees, new roof insulation and new thermally efficient windows, upgrading electrical capacity and removing asbestos. Installing LED lighting can improve overall electrical capacity, and solar panels can lower the amount of electricity used by heat pumps, reducing electrical consumption.

Decarbonisation should be viewed as a long-term plan because it may take several years of preparation to become 'decarbonisation ready'. The process doesn't start with installing low-carbon technology – it ends with heat pumps replacing fossil fuels, only once the estate has been properly prepared. ■

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### CASE STUDY

The Ripley Academy and Sixth Form in Derbyshire required £689,000 of funding to replace old coal-fired boilers with air-source heat pumps and an ageing uninsulated roof with a high-performance insulated roof to reduce energy wastage. S2e helped Ripley, part of the East Midlands Education Trust (EMET), secure all the money it required from the Public Sector Decarbonisation Scheme fund, as Chris Punter, EMET Estates Director, explains. "When we needed to replace our inefficient, expensive and fossil-fuel-guzzling coal-fired boiler dating from 1976, S2e helped us install super-efficient air-source heat pumps to set us on our path towards carbon zero. The results are remarkable: whereas the old boiler was operating at 60 per cent efficiency, the air-source heat pumps work at 300 per cent efficiency."

### MEMBER BENEFITS

S2e advises schools and MATs on their decarbonisation journey and has exceptional experience with decarbonisation funding, securing grants for 25 schools through the Phase 3 PSDS in 2022. For more information, visit [www.s2e.org.uk](http://www.s2e.org.uk)

