

School ahead of the game

IT is a school that is ahead of the game when it comes to decarbonisation.

Alverstoke Junior C of E School in Gosport asked for a comprehensive report on all the ways it used energy – then started to make improvements to lower its carbon footprint.

Among other things, it has already installed motion-sensor lights that turn off when no one is in the room, and replaced all their lightbulbs with LED lighting. They’ve also replaced the thermal cover over their outdoor swimming pool to prevent heat escaping into the atmosphere.

The school building was originally built in the 1970s, so much of its flat roof also needed to be insulated to prevent heat escaping. Some of that work has already been done.

The initial report, from the social enterprise Retrofit Action for Tomorrow (RAFT), suggested a series of short-term, medium-term and long-term actions that would drive the school towards being carbon net zero by 2030.

The total cost of all those actions could have been close to £2.5m, but site manager Graham Hicks has either done the work himself, or found cheaper options to achieve the same outcome.

He said: “The people from RAFT came to do a survey in February. Among other things, they had tools they could point at walls, windows and roofs to see where heat was escaping. They produced a comprehensive report which can guide us from now until 2030.

“We’ve implemented a few of their recommendations already, so every light will now go off after 10 minutes, and our hot water is being heated up only as it is being used. The thermal cover over the pool was only seven or eight years old, but replacing it has made a massive difference to the amount



Site manager Graham Hicks on the roof of Alverstoke Junior School

of electricity used to heat the pool.

“We have insulated some of the roof, but not all of it yet. We have to find 10 per cent of the funds needed to do this work, and the church has paid for some of that roof insulation.”

Other work that could follow over the next few years includes cavity wall insulation, replacing some windows and doors, installing air source heat pumps, and decommissioning gas boilers. The school could also install solar panels on the roof to generate its own power.

Much of this is government-funded including grants from the Public Sector Decarbonisation Scheme. But because the school is voluntary-aided, its governors need to provide 10 per cent of all capital funding.

Other schools across our diocese hope to follow their lead, as they take part in our diocesan-wide decarbonisation plan, which also involves RAFT.

over the past seven years, with the creation of a community café, Pantry and soft play area inside the building – and underfloor heating installed. This means the building is used constantly each day, so its leaders are looking for greener and less expensive ways of keeping it heated and lit.

“It’s great that the building is used so much by the local community, but that does mean its energy bills are quite high,” said David. “The church needs to re-roof the nave in any case, so if we can install in-roof solar panel tiles, that would really help.

“We hope to use the St Margaret’s project as a case study when we submit our bid to the national Church of England, so that we can secure some capital funding towards it.

“If this and one or two other initial bids are successful, that will help



David Cain on the roof of St Margaret’s, Southsea, with its operations manager Philippa Dawson and DAC architect Tim Sage

us to be sure of the right process to drive this forward in the future.”

Every one of our parishes is being encouraged to use the Energy Footprint Tool, which allows churches to enter details of their energy bills and work out what their carbon footprint is. You can reach that tool via www.portsmouth.anglican.org/environment.

Meanwhile **Portsmouth Cathedral** has been awarded an Eco Church silver award by A Rocha to recognise its achievements in promoting biodiversity and

reducing its carbon footprint. The latter has involved embracing LED lighting, double glazing and thermal curtains and blinds in its offices and community spaces in Cathedral House. Smart monitoring has also reduced heating requirements.

The Dean, the Very Rev Anthony Cane, said: “The attainment of Eco Church silver status is rewarding, but our commitment to caring for God’s earth extends far beyond accolades.

“We are resolute in reducing our carbon footprint and achieving net zero by 2030. Over the past 10 years, the cathedral has taken small, but important, steps to reduce its carbon footprint by 50 per cent.”

Find out more about our diocese’s commitment to meet this target on www.portsmouth.anglican.org/carbon_net_zero



Ecology has been a high priority at St George’s, Waterlooville

Finding the right heating system is a challenge

WORSHIPPERS at St George’s Church in Waterlooville have made some real progress in going greener – but a big challenge remains.

The parish has an active eco group, which has helped them to achieve the bronze award from the Christian charity A Rocha. It has involved them creating bird houses and bug hotels as well as planting trees to help conserve God’s planet. The parish have also installed LED lighting and improved their recycling.

The biggest challenge surrounds replacing their ageing gas-fired boiler for something much greener. However, as many churches discover, the ideal answer is not easy to find.

Diocesan environmental officer David Cain said: “The parish has looked at possible air-source heat pump solutions.

“But, even with a modestly-sized building, unless major replacement of the radiators is also considered, it will be challenging to provide enough heat without supplementing the installation with either a new and more efficient gas boiler or some form of air-conditioning unit which will be expensive to run.

“One potential solution that St George’s and other churches in our diocese are considering is infra-red heating.

“The recent DAC conference visited St Matthew’s, Kingsdown, in the Diocese of Bristol, where a new chandelier heating system has been installed using this technology.

“Warm-up times are considerably shorter, and the parish have noted an 80 per cent drop in its energy usage and a 63 per cent reduction in its heating bills compared with the previous gas heating.

“The advantage at St George’s is that the church already has chandeliers so the visual impact of replacing them with this type of heating is reduced. This is not a one-size-fits-all solution but it could be suitable in many of our churches.”

If your parish is interested in finding out more about this chandelier heating system, do contact David on david.cain@portsmouth.anglican.org or 023-9289 9687.