

A Church of England primary school has substantially reduced carbon emissions by installing a heat pump below its playing field.

Older children from the school's "eco team" are joined by local MP, Speaker of the House of Commons, Sir Lindsay Hoyle MP. They are staring at new pipes that have been installed under the playing field.
Diocese of Blackburn

The effort comes as all parts of the Church are working to reach net-zero carbon by 2030.

To fit the ground source heat pump, The Parish of St Laurence C of E Primary School in Chorley, Lancashire, had to install 4,500 metres of piping under its playing field, and drill seven bore holes to a depth of 150m. Â

A ground source heat pump works by drawing on heat below the ground with water heated as it is pumped through underground pipes. The water is then pressurised and used to heat a building.

The school's efforts have received national acclaim, including at the Green Church Showcase – an event hosted in Glasgow during the COP26 summit.Â

Alongside the heating improvements, all lighting throughout the building has also been converted to more efficient LED bulbs, and solar panels have been added to the roof. Steps have also been taken to make the building more airtight, reducing draughts and heat loss.

Headteacher, Emma Marquis, said that although digging up the field had been a little disruptive, the project had presented a learning opportunity.

"Our children have all been really keen to know what's going on and how it helps the environment," she said.Â

"To feel the heat in our school and know that it comes from under our field is amazing!

"We love showcasing what we've done here as part of our decarbonisation project and are really keen to get the word out there about how pivotal this is in us moving forward to become carbon neutral.

"It's really important to share that message and for the children to talk about their hopes and dreams for the future and the support they need in taking action to make smaller differences for a bigger change."

Dr. Sam Johnson, Deputy Director of Education for Blackburn Diocese said: "This has been a fantastic project from concept through to design and it is a real example of what is possible. Â

"Although not without its challenges, the project did go smoothly. The school has been fantastic in embracing the shift to net zero carbon, making bold and brave decisions along the way, and using it as a learning opportunity for children, staff, parents and the wider community."

Schools are included in the Church of England's target of achieving net zero carbon emissions by 2030. The General Synod motion was passed last year.Â

Consultation responses are [currently being sought on a draft routemap to achieving net zero carbon](#) by 2030. The consultation will close in February 2022.Â

The scheme has received financial support of Â£550k as part of a multi-million pound Government grant helping projects across The Diocese of Blackburn as part of the [Public Sector Decarbonisation Scheme](#).Â

A heat pump is shown in a trench with pipes emerging from it and running along the muddy trench floor

Image not found or type unknown

More information:Â

- The first picture shows older children from the school who are part of the student "eco team" meeting Sir Lindsay Hoyle, Speaker of the House of Commons and local MP, in front of the new heating system.
- The second picture shows the heat pump below the surface of the playing fields.
- The first action for schoolsâ planning to achieve net zero carbon emissions is to commission [Heat Decarbonisation Plan](#) (âHDPâ) which allows for a bespoke plan to be made which helps establish a business case for any bid for public funding.
- The [Green Church Showcase](#) was held on November 2 in Glasgow during the COP summit.Â

Source URL: <https://www.churchofengland.org/media-and-news/stories-blogs-and-features/heat-pump-under-playing-field-helps-school-cut-emissions>