

Net Zero Carbon by 2030

An introduction and milestones for Schools



St Andrew's Chedworth – net zero carbon school

Net zero carbon by 2030, an introduction

By 2030, the buildings of the Church of England can be bright and welcoming, and consume much less energy and emit less carbon than they do now.

That would be good for the people who use the buildings, and good for the whole of creation.

We can do it together, in stages. We've got a plan called the 'Routemap'.

This leaflet explains the background, what we're inviting you to do in the first few years of the plan, and the kind of support you will get.



Why does reducing carbon emissions matter for the whole Church of England today?

Responding to the climate crisis is an essential part of our responsibility to safeguard God's creation and achieve a just world.

Climate change hits hardest on the poorest countries and poorest people of the world. Meanwhile, the widespread destruction of the natural world is a crisis for creation.

Tackling climate change also supports our local mission. It witnesses to our communities that we are people who care about climate justice, now and for the future. Also, many of the steps needed to reduce energy use will make our buildings warmer and more welcoming, so they are suitable to be used more often by more people, and can save us money on our running costs.

Net zero carbon: what does it mean?

For the Church of England, being net zero carbon means that the carbon emissions of our buildings and travel will be reduced, to less than 10 per cent of our baseline levels. The remaining emissions will be offset in verified schemes that reduce carbon. That means overall, our buildings and travel will not contribute to rising carbon emissions: their contribution will be 'net zero'.

How was the Routemap agreed?

The General Synod, the representative body of the Church of England, including Bishops, Clergy, and lay people, voted in 2020 for the Church to become Net Zero Carbon by 2030 and asked for a plan of action. In 2022, General Synod approved this Routemap – the plan of action for how we will get there.

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Jesus taught us to love our neighbour, and in a globalised world, the church needs to be steadfast in reaching net-zero 2030 to show that love. Young people are key drivers of climate action and will be those most affected by the legacy of the climate crisis. Listen to us when we call for ambition and action. Don't drag your heels. Get on with it, in love, grace and humility.”

Young People's perspectives on why net zero carbon matters.

Why the focus on buildings?

The Routemap focuses on areas under our control or significantly under our influence. Of the areas directly under our control, the energy used by our buildings creates the most emissions, so this is the primary focus. The Routemap also considers one smaller area directly under our control: work-related travel that is paid for by the relevant part of Church. This includes flights, ferries, trains and expense payments for mileage.

Other areas of climate action are vital and very much part of our mission, such as influencing the lifestyles of parishioners and school families. However, the Routemap focuses only on ‘getting our own house in order’; cutting the carbon emissions the Church itself creates, so we can be credible in our call to the wider world to take action. We are concentrating on changing what we can. In this way we hope to be a role model for parishioners and school families to take climate action too.

To succeed, we must all understand more fully the importance and possibility of making all kinds of changes that protect and support all of God’s creation. There are steps in the Routemap about communication and understanding, which we hope will help deliver net zero carbon and support the other actions we need to take for biodiversity, climate resilience and lifestyle choices. Participating in Eco Church, a wider environment programme run by A Rocha, can make a significant difference in these areas, and so this is included in the Routemap milestones.

Which buildings are included in the net zero carbon goal?

The buildings in scope for the Routemap are:

- churches and church buildings
- cathedrals
- most Church of England schools
- clergy housing
- Theological Education Institutions (TEIs)
- central and diocesan offices



Jesus talks about stewards... I think this business of stewardship is very important. Stewardship of a church building but also stewardship of the creation that we live in and the planet that we live on.”

Rev Patrick Gerard, Rector of Baddesley Clinton and Lapworth, and the Bishop’s Advisor for the Environment in the Diocese of Birmingham

Can we really get there?

Yes, we know this is possible because some of our buildings are already net zero carbon. You can watch videos about their stories and read their detailed case studies at cofe.io/Environment.

Most switched to a low carbon heating method. Many simply found ways to use less energy, for example by changing their lightbulbs, excluding draughts, or improving insulation. A few started generating their own renewable energy on-site. Some introduced better heating controls. Most obtain electricity via a renewable energy tariff.

We also ran a research project to inform the Routemap. It found that all of the buildings studied could reach net zero carbon using existing technologies.

Different buildings, different journeys

Not all buildings emit the same amount of carbon, so not all buildings will need to do the same thing to become net zero carbon.

Most small, rural churches already have a smaller carbon impact than larger churches. A typical small church, not used every day, has an annual carbon footprint that is significantly less than an average UK household. Routine maintenance and switching off unnecessary heat and light will reduce carbon emissions further. Switching to green energy tariffs will allow such buildings to be net zero carbon for minimal additional cost.

We should focus bigger efforts and investment on large, busy buildings which will include our schools, offices, TELs, cathedrals and busier churches. Once reductions in energy consumption have been made, suitable buildings can consider on-site renewable energy generation and low-carbon heating, as well as switch to renewable energy tariffs.



Taking it step by step: some actions now, other actions later

The Routemap breaks down the journey into milestones to be completed by a particular year.

The themes of the milestones for 2022-25, for all types of buildings covered, are:

- data collection
- communication and planning
- good maintenance of buildings
- looking for energy reduction opportunities
- switching to green energy tariffs.

These are the necessary first steps and easy wins, and lay the groundwork for the long-term, more expensive investments that high-carbon emitting buildings will need to make after 2025.

For more about the principles behind the Routemap, read the full document at cofe.io/Environment.

How can we fund this?

Some of the actions needed won't cost much at all or will be offset by lower energy bills. Others will need significant investment.

We envisage that the actions set out in the Routemap will be funded in a mixture of ways, depending on the building. These may include:

- savings that can be made on current energy and fuel bills by adopting more energy efficient heating methods
- existing building maintenance or refurbishment budgets
- local fundraising
- grant sources, such as trusts, funds, government schemes, and some central funding via the national Church
- the potential for borrowing, to invest in those works which pay back.

The bulk of the costs are likely to come later this decade. The Routemap sets out initial actions to build finance and fundraising capacity for what will come later.

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We were using thousands of pounds of fuel each year. We realised if we could heat the people, rather than the building itself that would be much more efficient and beneficial all round. People have found the heated seat cushions very useful.”

Rev Canon Janice Ward, Vicar for the Parish of Marown, Foxdale and Baldwin, Diocese of Sodor and Man

“

The hope for the future is that we can do this, but we must start now.”

Rachel Keil, St Cuthbert's Church, Diocese of Liverpool

Milestones for Schools

Diocesan Boards of Education and Church of England VA schools & MATs



By the end of 2022

1. Create an action plan

Establishing an execution plan at school and at Diocesan Board of Education levels:

- The national team will provide training and resources to raise awareness of the strategic view of how to implement the different aspects of the Routemap.
- Make a declaration to becoming net zero carbon with Let's Go Zero.
- A national template will be provided to support you to develop your estates vision and strategy (informed by GEMS).
- A template checklist Mechanical, Heating and Fabric resilience plan will be provided to help you to manage your estate and get your school 'retrofit ready'. This will be supported by a capital asset management checklist and guidance for implementing a Climate Action Plan in your school.
- Use the template annual resilience statement to enable greener governance in your school and facilitate good reporting.

2. Collect data

DBEs will promote the *Energy Toolkit* and schools will commence data collection from DEC reports and utility bills and enter into the Energy Toolkit for schools.

3. Connect with people who can help

It is suggested that Diocesan officers connect regionally to build capacity and support through the establishment of 'Regional School Environment Groups' (which may include voices such as school leaders, school business managers, school governors and directors, diocesan buildings officers, diocesan environmental officers, local authorities, surveyors, consultants, local champions, people with technical expertise).

By the end of 2023

4. Identify end-of-life boilers

Dioceses are to identify school sites that have boilers approaching end-of-life and support schools through funding feasibility to identify opportunities for a more sustainable solution; committing not to replacing with like-for-like fossil fuel powered options.

5. Identify funding opportunities

DBEs will prioritise seeking public funding to commission energy audits and Heat Decarbonisation Plans to secure sustainable heating solutions in line with the 2030 target.

6. Install smart meters

DBEs are to identify local opportunities through BEIS and the *DfE School Procurement Frameworks* to deliver smart meter installations across all school sites; including accessing training opportunities and technological support where available to empower school communities to interact with the data as a way in which to promote sustainable practices.

7. Review or create a Travel Plan

Where applicable, schools and DBEs are encouraged to develop or update a Travel Plan that includes 'no travel' options and the installation of EV charging points.

By the end of 2024

8. Update your plans

Revise your Climate Action Plans to include an Execution Plan that is developed using site energy audits and will include areas such as funding, vision and strategy, delivery method and programme.

Climate Action Plans with Execution Plans are for VA school sites and DBE sites where capital funding from the ESFA is held.

9. Review travel policies

Where applicable, schools to review and update travel and expenses policies to encourage sustainable transport.



Schools can become beacons for their parish church, enthusing, leading the way and supporting the church's journey to be an Eco Church and on its route to Net Zero Carbon"

consultation response – DBE

Scope

The net zero carbon 2030 target is for schools where the Diocesan Board of Education has greater influence over governance and holds some capital funding. For the purposes of the Routemap this includes voluntary aided and academy companies that are under church majority articles of association. The target covers the energy used in the buildings and all work-related travel.



The first real learning lesson is, this is possible, we can make existing schools, which are a complete mix of old and new, we've got the technologies that can make schools net zero carbon and we've got them here today and they can be done. This school proves that."

Matt Fulford, Project Lead, St Andrew's school, Chedworth, Diocese of Gloucester



By the end of 2025

10. Switch to green energy tariffs

All schools are encouraged to work with their procurement provider, and the *DfE Schools Commercial Team*, to switch to green energy tariffs at point of contract renewal. Having reviewed options to replace fossil fuels, any school site remaining on gas heating should switch to a 'green' gas tariff, based on national advice about the criteria to apply.

Timing of this milestone to be kept under review, depending on stabilisation of the energy markets and / or government action.

By the end of 2026

11. Update your action plans again

Revise your Climate Action Plan to include Heat Decarbonisation Plans.

By the end of 2030

12. Complete all your planned actions

Complete delivery of the actions in these plans (subject to funding).



What else can we consider?

Additional actions are suggested in Section 4.3 of the Routemap. These are supplementary to the milestones and offer other ideas for your journey to net zero carbon.

Please also review the travel milestones in Section 5.3.

Read the Routemap at cofe.io/Environment.

What support is available?

Already available on the Church of England website (at cofe.io/Environment):

- recordings of webinars, with new topics added regularly
- guidance on energy efficiency, renewable energy, EV charging, heating, energy efficiency and much more; also the Practical Path to Net Zero for churches (which has useful ideas for most buildings)
- case studies

- Energy Toolkit (for recording your building energy use and travel miles to calculate your carbon emissions)
- criteria for procurement of true green tariffs.

By the end of 2023, the national church will also provide:

- guidance for schools, similar to what is already available for churches (known as the Practical Path to Net Zero)
- resources to support Diocesan engagement with the family of church schools and wider communities.
- continuously updated information about new sources of funding, as they become available, including investigating a centrally approved financing structure for PV panels and LED lighting.
- guidance on key considerations to include in an effective estates vision and strategy to become a net zero carbon school
- template for an 'Annual Resilience Statement' which schools can adopt
- template for a mechanical, heating and fabric resilience plan

- checklist for a Climate Action Plan
- initial training for DBEs about commissioning energy audits, Heat Decarbonisation Plans and establishing an Execution Plan across the whole school estate
- training to support DBEs to work with schools to get ready to retrofit sites and implement changes to the building fabric as part of a phased approach to becoming net zero carbon and more sustainable.

The Church Commissioners are funding this national support and capacity building programme, to help us all reach net zero carbon together.

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THE CHURCH
OF ENGLAND
Environment Programme