

Net Zero Carbon by 2030

An introduction and milestones for Churches



St Michael's Baddesley Clinton - Grade II* listed net zero carbon church

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

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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 Churches



By the end of 2023

1. Consider registering for Eco Church status, and aim for Bronze

10% of local churches in every diocese to be registered with Eco Church and 5% to be awarded at least a Bronze Eco Church award.

2. Complete the Energy Footprint Tool

Every diocese to have a 90%+ completion rate for the Energy Footprint Tool.

By the end of 2024

3. Switch to green energy tariffs

At the point of contract renewal, switch to 100% green electricity tariff.

If you still have gas heating after having reviewed options to replace fossil fuels, switch to a 'green' gas tariff at the point of contract renewal, 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 end of 2025

4. Ensure efficient lighting

All churches to have energy-efficient lighting installed throughout, with timers and light and motion sensors where appropriate.

5. No new oil boilers

No new oil boilers installed in churches after this date, subject to government action to connect rural communities to the grid.

6. Review potential for electric vehicle charging points

For those churches that are tourist destinations, review opportunities to install electric charging for coaches.

By end of 2026

7. Register for Eco Church status if you haven't already, and aim for Silver

40% of local churches in every diocese to be registered with Eco Church, 30% of these to have an award and at least a third of these to be awarded Silver Eco Church award or higher.

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All I've known here is cold ... [I'm looking forward to] step into a warm and cosy office building, but it isn't just for me, its for all the services we have throughout the winter as well. It's good to know that we can be providing a more hospitable environment to our congregation as well.”

Laura Li, Parish Administrator, St Andrew by the Wardrobe, Diocese of London



By end of 2027

8. Top 20% of energy-consuming churches to write a Net Zero Carbon Action Plan

From 2022, the top 20% of energy-consuming churches in each diocese to begin to develop Net Zero Carbon Action Plans, to be finalised no later than 2027. These plans should include, as a minimum:

- low-carbon heating options to replace fossil-fuel heating at end-of-life, such as heat pumps or far infra-red heating panels
- a Heating Resilience Plan which should consider how to manage heat should the existing system fail, to avoid needing a quick like-for-like fossil-fuel replacement.



Does this apply to me?

Only the top 20% of energy-consuming churches have been asked by General Synod to make an Action Plan, but all churches can choose to do so. The criteria is whether you use a lot of energy, and therefore emit a lot of carbon, compared to the other churches in your diocese.

If you are a small rural church, you are highly unlikely to fall into the 20% so you won't have to make an Action Plan unless you want to, but you can still take measures to reduce your energy use and carbon emissions. [The Practical Path to Net Zero Carbon for Churches is a great place to start.](#)

Roughly speaking, it will usually be the biggest, regularly-heated churches in the diocese who need to make an Action Plan. If you are unsure whether you would be in this bracket, talk to your diocese.



By end of 2030

9. Complete the actions in your Net Zero Carbon Action Plan

If you wrote an Action Plan, the end of 2030 is the deadline to complete all the actions you set out in your Action Plan.

Scope and exceptions

The scope of the net zero carbon 2030 target includes churches and all church buildings. It covers the energy used in these buildings and all work-related travel for staff, clergy and volunteers that is paid for by the Church. In the dioceses of Europe, Sodor & Man, and Salisbury (for the Channel Islands), some buildings may not be owned. If you cannot carry out the milestones as a result, there may be ways for you to influence for them to be carried out.

What else can we consider?

Additional actions are suggested in Section 4.2 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, environmental fundraising, and much more; also the Practical Path to Net Zero for churches
- case studies
- Energy Footprint Tool (for recording your building energy use and travel miles to calculate your carbon emissions)
- criteria for procurement of true green tariffs

Your Diocesan Environment Officer and the national environment team are available to provide support, signpost you to information and answer questions.

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

- guidance on churchyard management for nature and climate, writing a Net Zero Carbon Action Plan
- a Practical Path to Net Zero for Cathedrals and Major Churches (a guidance document)
- continuously updated information about new sources of funding, as they become available
- template legal documents for funding via affordable lending, community energy or Power Purchase Agreements.

Through Parish Buying, the national church will expand its net zero product offering, which already includes solar panels, heating solutions, 'green' gas tariff, energy audits and the green energy basket.

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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We decided we would heat the people, and not the building. I had read an article somewhere about underpew heating ... what it taught us was that instead of putting one pew heater in the centre, it was much better to buy two smaller pew heaters and put two heaters per pew”

Graham Hughes, Church Warden, St Michael's church, Baddesley Clinton, Diocese of Birmingham



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2022



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