

Net Zero Carbon Action Plan

2023-2030



THE CHURCH
OF ENGLAND
Diocese of Chester

Net Zero Carbon Action Plan 2023-2030

Diocese of Chester

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1: Foreword

By The Bishop of Chester Mark Tanner

Then God said, 'Let us make humankind in our image, according to our likeness; and let them have dominion over the fish of the sea, and over the birds of the air, and over the cattle, and over all the wild animals of the earth, and over every creeping thing that creeps upon the earth.'

God blessed them, and God said to them, 'Be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and over the birds of the air and over every living thing that moves upon the earth.'

(Verses from Genesis 1.26-31)

This planet is the most astonishing, unique, and precious gift. God Himself shapes it, sustains it, blesses it, and entrusts it to us, those created in His image. It is ours for a brief span, and we pass on this gift to those we ourselves beget, knowing that their life depends on the wellbeing of the earth, just as ours has and our foremothers and fathers has always done since the first moments of creation.

Day by day, though, the signs are clear: the writing is not so much on the wall as in the spreading deserts, the melting ice-caps, the violence of storms and frequency of flooding. It is etched into scarred landscapes left devastated by deforestation, tattooed into bleached coral reefs, and stamped clearly on the disappearing islands of Melanesia. Human impact is wreaking havoc on our global environment, and the urgency of this crisis cannot be overstated.

Worse, though, the impact is as uneven as it is dramatic: the poorest suffer most and can do least about it. The time for action is now, and the need for action is pressing.

I am proud of the lead that the Church of England is taking in this work: it arises from faith, hope, and common sense. We, in the Diocese of Chester, have a key part in this. The challenge of Net Zero by 2030 may well feel beyond us, but with each passing day the cost of missing this target rises, and the more we miss out on the benefits it brings.

In all this there is much hope. We need to do more, but we are already taking action. Thank you for your part in all this. It is amazing what we can achieve when work together, pray, and step out in faith in pursuit of the One through whom all things were created. I look forward to our shared response, and I look forward even more to the world that we will bequeath to our children and our children's children, for:

God saw everything that he had made, and indeed, it was very good. And there was evening and there was morning, the sixth day.



Bishop Mark

2: Executive summary

In February 2020, General Synod voted for the whole of the Church of England to achieve Net Zero Carbon by 2030, recognising that the global climate emergency is a crisis for God’s creation and a fundamental injustice. In November 2022 the Diocese of Chester adopted the same target.

In July 2022, General Synod endorsed a national [Net Zero Carbon Route map](#), which sets out how dioceses across the country should work to achieve this. It provides key milestones for different parts of dioceses, including churches, clergy housing, schools, cathedrals, TEs and diocesan offices. One of the first milestones is to create and adopt a Diocesan NZC Action Plan. With this in place, the Diocese of Chester can access National Church funding to help take our plan forward.

Diocese of Chester’s In-Scope Carbon Emissions

Sector	Responsible body	Properties in scope	Data year	tCO ₂ e emissions (rounded)
Churches & Halls	PCCs	463*	2022	5,257
Schools	Chester DBE	114	2022	3,322
Clergy housing	Chester DBF	215	2022	1,842
Cathedral	Cathedral	1	2021	263
Offices (including Foxhill)	Chester DBF	2	2022	49
Reimbursable diocesan work travel	Chester DBF	-	2022	7
Emmanuel Theological College	ETC	-	2024	TBC
Total				10,740

* Churches 346, estimated number of Halls 117 (derived from EFT submissions)

Chester’s NZC Action Plan sets out the actions required to progress towards NZC 2030, and concludes with recommendations and identifies levers for change that will support and facilitate implementation. Bringing together headlines from plans developed and owned by entities across the diocese, it presents a ‘direction of travel’, the best estimate based on currently available data in a fast-changing context. Technology is developing rapidly with prices expected to come down, statutory requirements and government investment plans are in flux and energy markets remain volatile. This plan will be refined and reassessed as we gather clearer data on our emissions and as NZC work progresses across the diocese.

Aiming for NZC by 2030 requires a two-pronged approach. Firstly, the diocese and independent entities within it must focus on ‘bricks & mortar’, costing and planning the work required to decarbonise our buildings with the replacement of fossil fuel heating systems presenting the biggest challenge and the greatest carbon reductions. Secondly there is the ‘hearts & minds’ work of communicating the urgency of the project and engaging and empowering people across the diocese to reduce energy use and work to implement the NZC Plan.

Chester’s Diocesan Board of Finance (DBF) is responsible for emissions reductions in areas over which it has direct control (Clergy Housing, Diocesan Offices, reimbursable staff travel). Diocesan staff also have a key role to play in providing leadership, strategic oversight and support to sectors of the diocese over which DBF has influence but not direct control as they work to implement their own plans for NZC 2030 (Churches & Parish Property, Schools, Cathedral, Emmanuel Theological College).

With National Church funding, Chester has recruited a full time NZC Project Officer (NZC PO) who will further develop and drive implementation of this plan and present a costed version to Diocesan Synod in November 2024.

3: Introduction

Theological rationale

The call to care for the environment is inextricably linked to the fundamentals of our faith. Jesus was categorical in stating that the greatest commandments were to love God and love our neighbour (Matthew 22: 36-40). If we ignore the catastrophic harm being caused to God's creation by our neglectful actions, then it is hard to see how we can claim to love the creator. And if we ignore the plight of our brothers and sisters whose lives are being decimated by climate change, along with future generations who are likely to suffer even more, then it is impossible to argue that we are truly loving our neighbour.

Climate action can also be viewed as a key component in each of our Five Marks of Mission...

1: To proclaim the Good News of the Kingdom

We have a vision to collaborate with our secular colleagues and those from other faith backgrounds, to participate in networks and develop partnerships. We want the wider world to see the church as a relevant and positive force for good in a low carbon future. There is a clear opportunity for mission here, especially among young people. We proclaim that Jesus came to redeem people and creation, this is our outworking of that proclamation.

2: To teach, baptise and nurture new believers

Our teaching must contain clear reference as to how following Jesus can bring about a new creation, both in ourselves, our communities and in the world around us. We aim to encourage all our parishes to engage in A Rocha's Eco Church scheme and to utilise accompanying teaching resources within their worshipping.

3: To respond to human need by loving service

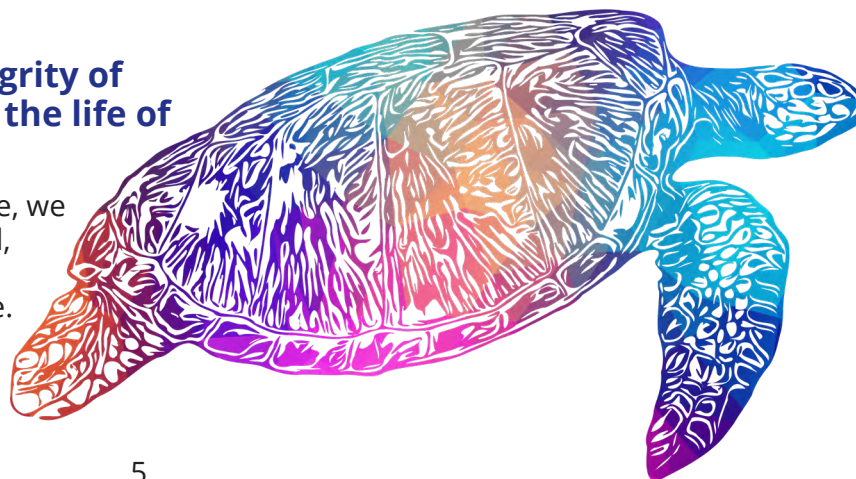
We are seeking a Just Transition to a low carbon future, where everyone has access to affordable energy. Inherent in our net zero work is also a mission to tackle fuel poverty in our communities and for church buildings to become more financially and environmentally sustainable to enable them to continue to serve their communities for example through Foodbanks, Warm Spaces, Cool Spaces and as venues for community activities.

4: To transform unjust structures of society, to challenge violence of every kind and pursue peace and reconciliation

The energy system is unjust, access to affordable energy, public transport, nature is not equal in the UK or worldwide. As we progress towards net zero, we will be advocating for and working towards transformation of these unjust structures. Our overconsumption of energy and goods is causing catastrophic climate change in other areas of the world, this is immeasurably unjust.

5: To strive to safeguard the integrity of creation, and sustain and renew the life of the earth

The climate crisis is devastating for nature, we are destroying ecosystems, polluting land, rivers, sea, the very air that we breathe, and are losing species at an alarming rate. We must act to safeguard and renew the creation which God has entrusted to us.



What is 'Net Zero Carbon'?

The Church of England defines Net Zero Carbon (NZC) as the reduction as far as possible of all in-scope carbon emissions (from the oil, gas and electricity we use in our buildings and petrol and diesel in transport). To achieve NZC an amount equivalent to these remaining emissions will be removed through adoption of renewable tariffs, other valid offsetting schemes and exporting surplus renewable energy from on-site generation in our buildings.

Our goal: Net Zero Carbon by 2030

We need to reduce the carbon emissions that we all make in every area of Diocesan activity, playing our part to tackle the climate emergency and as part of our outworking of the Fifth Mark of Mission. The goal is to reduce emissions to 10% of the baseline presented in the summary above by 2030.

Most of our carbon emissions are generated through heating and lighting our buildings, with a smaller proportion generated through business travel. Chester Diocese has committed to cutting carbon emissions to the maximum extent by 2030 and to explore how the remainder might be offset. (which should taper off after 2030).

The full scope of the NZC target as defined by the Church of England is presented in Appendix 1, which also shows that which comes within scope after 2030 and that which will never be in scope but which we will aim to influence as part of the Church's mission.

How will we deliver this plan?

Recommendations

At the end of this document are recommendations for delivery which include governance and staffing, fundraising, communication, training and other organisational levers crucial to its implementation.

Resourcing

Chester Diocese will work closely with the National Church Environment Team, who are responsible for administering the £190m NZC triennium funding committed by the Church Commissioners. Initially this funding is intended for internal capacity, pilots and quick wins followed by larger capital funding programmes running from 2026 to 2031 (Appendix 2). Both National Church and external funders will expect Chester DBF to commit some funding to the ongoing work.

Communication

Communication and engagement will be crucial to NZC delivery, particularly with parishes, an area where Chester Diocese has influence rather than control. We need everyone across the diocese to understand the NZC challenge, how they can act on it, and where they can find resources and support to do so.

Reporting

This plan will be reviewed and updated with progress on milestones tracked by the NZC Working Group (meeting quarterly) and presented with our carbon emissions report to Diocesan Bishops's Council (annually), Diocesan Synod (biennially) and to the National Environment Team for inclusion in their national report to General Synod (triennially from 2025). Costings will be refined in light of changing energy markets, emerging technology and wider governmental support and infrastructure.

Offsetting

Where sectors are not able to reach NZC by 2030 there will be offsetting costs to the relevant entities (DBF, DBE, Cathedral, PCCs etc). See recommendations.

Church Land

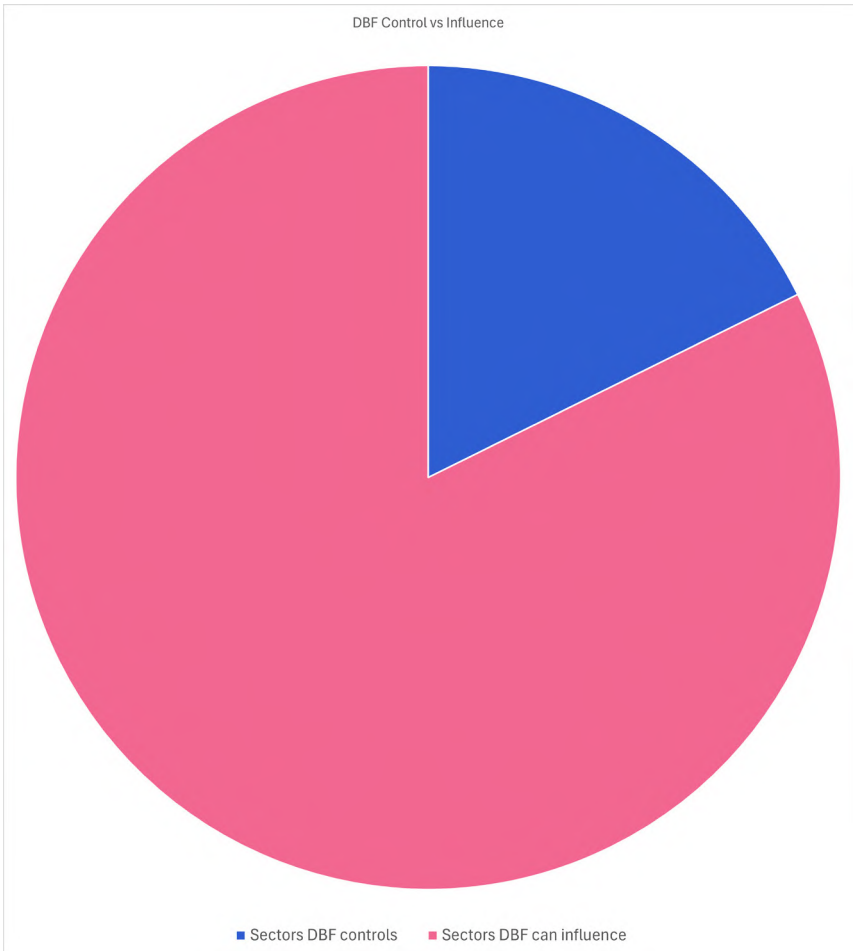
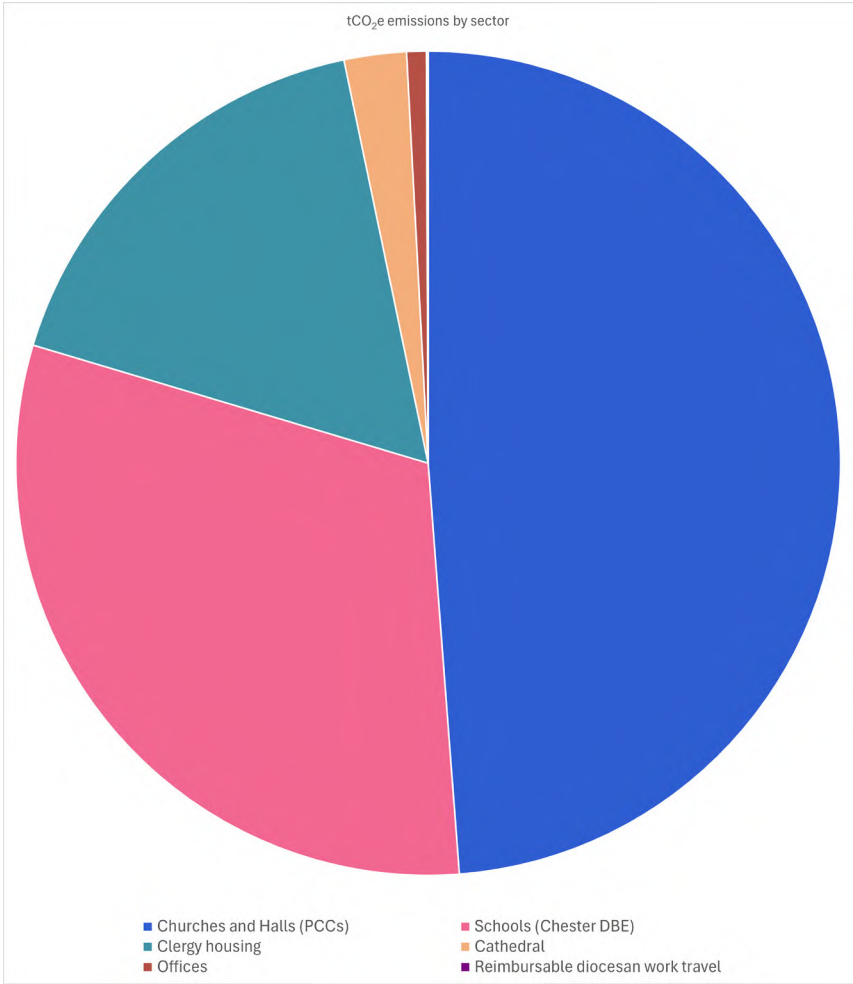
This complex area will be explored by the NZC PO and NZC WG for inclusion in future iterations of the plan. Land holdings come into scope after 2030. Chester Diocese will need to develop a land management plan detailing individual uses in relation to potential offsetting ready for implementation ahead of 2030. Related projects include potential promotion of greater carbon sequestration on church lands and parishes managing their churchyards to store carbon and promote biodiversity.

The Diocesan Net Zero Action Plan

This section outlines a plan of action to reduce carbon emissions under the direct financial or operational control of Chester's Diocesan Board of Finance (DBF). This includes Clergy Housing, Diocesan Offices, reimbursable diocesan work travel and levers for change to support plan implementation through embedding the agreed diocesan target of NZC by 2030 in our policies, plans and working practices. As shown in the table below, whilst DBF controls less than a fifth of overall diocesan emissions, it has a key role to play in influencing and supporting sectors that contribute most to our carbon footprint. Actions related to communications to be led by DBF staff are therefore included in this section.

DBF Control vs influence

Sectors DBF controls	tCO ₂ e emissions (rounded)
Clergy housing	1,842
Diocesan Offices (including Foxhill)	49
Reimbursable diocesan work travel	7
Total	1,898
Sectors DBF can influence	
Churches and Halls (PCCs)	5,257
Schools (Chester DBE)	3,322
Cathedral	263
Emmanuel Theological College	TBC
Total	8,842
Combined total	10,740



4: Diocesan offices

Carbon footprint

Diocesan Offices total: 48.74 tonnes CO₂e (2022 estimate)

Comprised of

Church House: Zero tonnes CO₂e net (2021 derived from 360 carbon calculator: 18.26 tonnes CO₂e gross offset by CoE approved renewable energy tariff)

Foxhill House: 48.74 tonnes CO₂e net (2023 derived from 360 carbon calculator: 64.66 tonnes CO₂e gross with offset by CoE approved renewable electricity tariff)

Note on renewable energy tariffs: *The Diocesan Offices' gross carbon emissions are offset because both locations are supplied by a CoE approved renewable energy tariff. Criteria for approved tariffs are currently being reviewed by CoE's Environment Team.*

4.1 Strategy

To commission Energy Audits for Church House and Foxhill House, adopt decarbonisation plans for each based on the audit findings, implement quick win measures and work with staff to increase energy efficient behaviour in the short term and plan for larger interventions such as heat pump and solar PV installation (where relevant) by 2030.

Church House is a new building with full electric heating on a Green tariff. LED lighting has yet to be installed and the Energy Audit will address potential for solar PV and battery installation. Beyond these interventions, the scope for carbon reduction is around staff behaviour change, particularly relating to travel.

Church House Management Group will review the following measures and implement as appropriate; continue with LED installation throughout (up to 70% reduction on energy used for lighting), establish a Church House Environment Group, promote energy reduction through behaviour change, introduce a Travel Policy and review our Travel Plan to help staff choose low carbon transport, update Expenses Policy to allow claims for cycle travel to meetings and an uplift in mileage claims for car sharing, to reduce travel emissions.

Foxhill House, the retreat and conference centre owned by Chester Diocesan Board of Finance is a large Victorian house set in 70 acres of woodland and lawns, that can accommodate 26 overnight guests and cater for up to 80 people. Progress has already been made with double glazing throughout, smart electricity meter and green electricity tariff, some LEDs and motion sensor lighting installed, heating controls upgraded and high staff adherence to energy saving practices. The Energy Audit will advise on loft insulation, scope for EV charging points, installation of solar PV and battery and options for replacement of the oil-fired boiler system in the mid to long term. Replacing the oil-fired boiler will have the greatest impact in terms of carbon emissions reduction and will also be the most logistically and financially challenging element.

4.2 Actions for Diocese from the National Routemap related to diocesan offices:

By end of 2023

- Diocesan offices registered for Eco Church in 2022 **Complete** and achieve Bronze in Q1 2024 **expected for Church House** and Silver by 2026.
- All dioceses provide an outline of their decarbonisation plans to Diocesan Synod as a Net Zero Carbon Action Plan, to include estimates of costs for different options, as well as the policy changes and levers for change required. **Scheduled for November 2024.**

- All offices to measure and report on their carbon emissions by inputting utility bill information and floor area into the Energy Toolkit. **Complete for Church House, outstanding for Foxhill.**
- All offices have at least a high-level Net Zero Carbon Action Plan, referencing the Practical Path to Net Zero, considering 'quick wins', and containing a Heating Resilience Plan. **Outstanding (will follow from Energy Audit).**
- Offices to review the potential for installation of electric vehicle charging points and the provision of dedicated car parking spaces for electric cars. **Outstanding.**

By end of 2024

- Switch to a green tariff for offices at the point of contract renewal. **Complete.**

By end of 2025

- Prepare a report on progress on the milestones detailing the successes and explaining the reasons for any delays to progress.

By end of 2029

- All dioceses reach Gold Eco Diocese standard of 2030.

By end of 2030

- Implement carbon offsetting with an approved supplier to offset those emissions that have been impossible to eliminate.
- All owned offices to deliver the actions in their net zero carbon action plans.

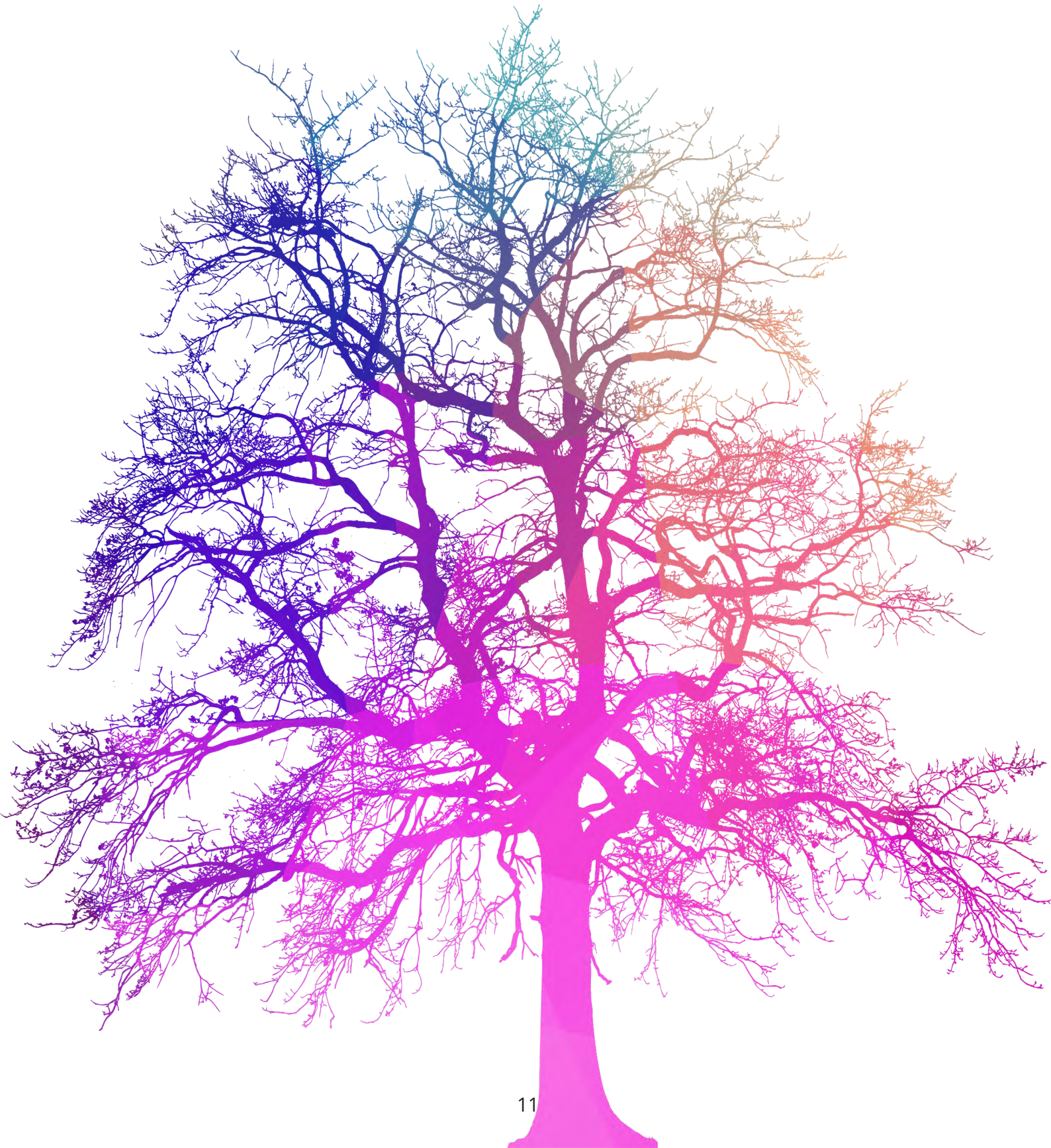
4.3a Measures for Church House

- Commission Energy Audit, implement quick wins and adopt NZC Plan
- LED installation throughout when practicable
- Form an office environment group (on appointment of DEA)
- Review potential for EV charging point installation
- Review potential for solar PV and battery installation
- Introduce Travel Policy and review the existing Travel Plan to support lower carbon travel
- Encourage diocesan staff to take up Carbon Literacy training offered by CoE



4.3b Measures for Foxhill House

- Commission Energy Audit, implement quick wins and adopt NZC Plan
- Complete LED and motion sensor light installation
- Review potential for EV charging point installation
- Explore potential for solar PV and battery installation
- Explore alternatives to oil fired boiler system and financing for preferred option



5: Work-related travel

Carbon footprint

Church House staff reimbursable travel: 7.11 tonnes CO₂e (2021 estimate)

5.1 Strategy

Chester needs to gather clearer data on reimbursable travel in order to calculate related carbon emissions more accurately and target areas for improvement. HR is to update the expenses claim form to include type of vehicle and engine size and train journey mileage.

The diocese will introduce a Travel Policy and Travel Plan that encourages use of public transport and active travel including cycling and lift sharing.

The Communications Strategy will encourage everyone to make lower carbon travel choices where possible.

Diocesan staff will be encouraged to take up Carbon Literacy training offered by CoE to embed NZC 2030 targets in our organisational culture.

5.2 Actions for Diocese from the National Routemap related to work-related travel:

By end of 2023

- All dioceses to develop or update a Travel Plan. **Outstanding.**
- Offices to review the potential for installation of electric vehicle charging points and the provision of dedicated car parking spaces for electric cars. **Outstanding (to be covered by Energy Audit).**

By end of 2024

- If office review is positive for EV charging points then move ahead to installation

5.3 Measures to reduce travel emissions

Gather clearer data on travel emissions and target key areas for improvement

- Consider installing EV charging at diocesan offices, if review recommends
- Introduce Travel Policy and Travel Plan to help staff choose low carbon transport
- Communications and engagement to promote low carbon travel choices
- Consider cycle to work and EV Salary sacrifice scheme

6: Clergy housing

Carbon footprint

Clergy Housing: 1,841.71 tonnes CO₂e (2021 estimate)

EPC Grade	Properties
A	0
B	14
C	22
D	108
E	58
F	12
G	1
Total	215

Note: Data on energy consumption for clergy housing is not available. The carbon emissions calculation is based on historic Energy Performance Certificate (EPC) data available for 104 properties. EPC grades were assumed for the remaining 111 properties based on comparators, age, layout and size.

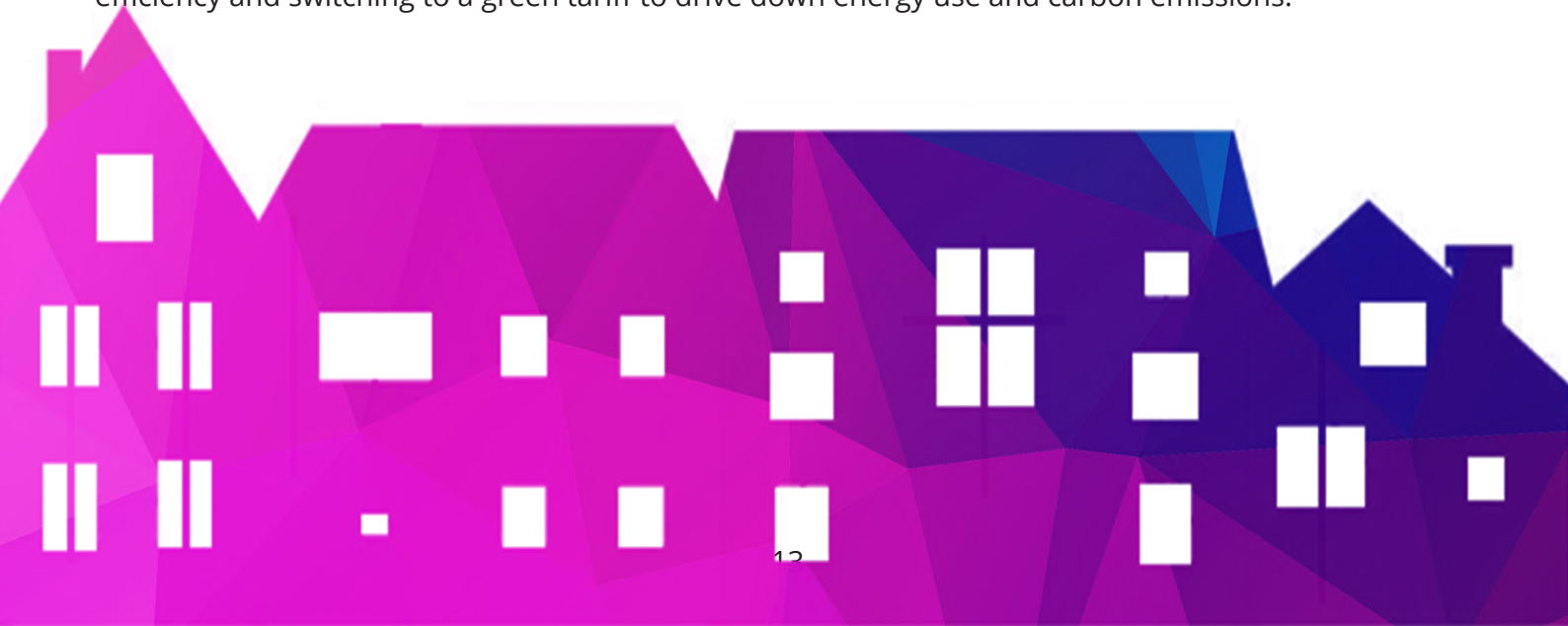
6.1 Strategy

The decarbonisation of clergy housing will require a NZC Implementation Plan, additional resources and significant investment. The main source of carbon emissions are fossil-fueled boilers. However, replacement of these with, for example, an electric powered heat pump, first requires an upgrade to the thermal efficiency of the building in order to be effective. The estimated cost of 'deep retrofitting' a clergy home by installing LED lighting, double glazing, wall and roof insulation and a non-fossil fuel heating system ranges from £100k upwards.

First steps include auditing clergy property to identify which already have LEDs, double glazing and roof insulation and those with oil-fired boilers and gas fired boilers nearing end of life to be prioritised for non fossil-fuel replacements. This data will be used to develop a phased retrofitting programme with estimated costings. The Property Manager and NZC Project Officer will develop a plan to audit clergy property, identify categories of property and the actions required to fully decarbonise the estate. This work will inform a NZC Implementation Plan with a timeline that accounts for housing vacancy rates when retrofit work can be carried out. The diocese is investigating a potential retrofit on a vicarage requiring a gas boiler replacement to provide a case study and develop more detailed costings.

Statutory context: While proposed Minimum Energy Efficiency Standards (MEES) legislation has been delayed, upgrading to EPC grade C remains desirable; it will improve the comfort and energy efficiency of the estate for all occupants and is in line with the diocesan commitment to NZC.

Whilst emissions from occupants' energy use fall outside its scope, the diocese will promote energy efficiency and switching to a green tariff to drive down energy use and carbon emissions.



6.2 Actions for Diocese from the National Routemap related to clergy housing:

By end of 2023

- All dioceses audit clergy property (where possible) by 2023, in preparation for a property retrofitting plan. **Outstanding**
- All dioceses to have housing retrofitting and maintenance plans in place, to include a Heating Resilience Plan. **Outstanding**
- All dioceses to have commissioned stock surveys such as EPC+ reports for at least a representative sample of clergy housing. **Outstanding (quotes currently being sought)**

By end of 2024

- All dioceses to have housing stock improvement plans in place, having regard to the timing of when properties become vacant. The plan should make reference to the Practical Path to Net Zero and actively consider implementation of 'quick wins', how to decarbonise heat and how to reduce energy consumption.

By end of 2030

- At change of tenancy, and no later than 2030, install smart meters in clergy housing to assist with monitoring and management of energy consumption.

6.3 Measures to reduce emissions from clergy housing

Audit clergy housing stock, commissioning EPC+ reports where necessary to improve data and inform planning

- Use improved data to develop a NZC Implementation Plan and prioritise most impactful interventions (e.g. non-fossil fuel replacement of oil fired boilers and gas fired boilers near end of life)
- In vacancy, ensure that LEDs, double glazing and loft insulation are installed and any other quick win interventions completed
- NZC PO to run a switching campaign to help clergy switch to green tariffs, and develop a system to track progress
- NZC PO to promote behaviour change to reduce energy use

7: Communications

7.1 Strategy

Communication and engagement around our NZC 2030 target, its underpinning theology, and its implications for different stakeholders across the diocese is essential for the implementation of Chester's NZC Action Plan. Whilst the Head of Communication role is vacant, the NZC Project Officer will write an interim NZC Communications Strategy in consultation with the Diocesan Communications Officer. Both will disseminate NZC communications materials supplied by the National Church Environment Team to the relevant departments and working groups.

7.2 Actions for Diocese from the National Routemap related to communications

By the end of 2024

- All dioceses should develop a communication strategy to churches and schools - focus on the 'why', the theology, and make it positive. **Pending.**

7.3 Projects for effective communications

Update communication strategy and annually

- Build a network of Creation Care Leads in each deanery
- Embed net zero and creation care messages in established training days - new staff, clergy, treasurers etc
- Roll out Carbon Literacy training for staff and clergy
- Promote parish uptake of Carbon Literacy Toolkit Course suitable for use by a home group or Lent Course over a series of weeks.
- NZC PO, BMFA and others to speak about NZC (panels, workshops, schools, services etc)
- NZC PO, BMFA and others to organise NZC Roadshow to inform and inspire parishes
- Promote wider Creation Care activities, for example, Caring for God's Acre and City of Trees



8: Policies

This plan recommends that the relevant diocesan bodies review policies with a view to embedding NZC 2030 in its working practices as follows;

Expenses Policy

To be updated to allow claims for cycle travel to meetings and an uplift in mileage claims for car sharing. The expenses form will be updated to enable tracking of emissions from work-related travel.

Recruitment Policy

Future job descriptions will include reference to the Diocesan commitment to Net Zero 2030. The induction process will include a meeting with the NZC PO for all new staff members.

Hybrid and Flexible Working Policy

There has already been significant change towards flexible working. Further analysis of the impact of this shift on reducing carbon emissions will be carried out.

Environment Policy

The NZC PO will consult stakeholders on the Environment Policy in 2024 as part of the biannual review process and update it to reflect the Diocesan NZC Action Plan.

Travel Policy and Travel Plan

NZC PO to review current Travel Plan and consult on developing a Travel Policy that supports staff in making lower carbon travel choices.

DAC Sustainability Policy

The DAC Secretary is bringing together DAC sustainability guidance for churches in one document. DAC to review how the QI format can be adapted to support NZC planning.

Enabling the Church of England in Diocese of Chester to work towards Net Zero 2030

The largest part of the carbon footprint of the Church of England in Chester is generated by our schools and churches. These and the other diocesan entities in this section are independently governed organisations with their own NZC 2030 plans (summarised here) which they are responsible for implementing. DBF does not control but has an important role in influencing and supporting these sectors on their own journeys towards Net Zero.

9: Churches & parish property

Carbon footprint

Churches and parish property: 5,257 tonnes CO₂e (estimate based on 2022 data with 65% EFT completion rate).

Category	Properties	tCO ₂ e
Churches	346	4,381
Halls	117	876
Total	463	5,257

9.1 Strategy

Individual PCCs are responsible for developing and implementing NZC plans for their churches, halls and other properties. The diocese will support parishes wherever possible as they work towards NZC 2030. The NZC Project Officer, Buildings for Mission Advisor (BFMA) and Diocesan Environment Adviser (DEA - to be appointed) will signpost and share NZC resources including funding opportunities. All three staff will work with the Environment Forum, Eco Church Group and proposed network of deanery Creation Care Leads to share information and learning and promote collaboration where beneficial.

Energy Audit: As a first step, parishes are encouraged to commission an Energy Audit which will address the 'bricks and mortar' challenges and set out a NZC 2030 plan for PCCs to adopt. The NZC Project Officer (NZC PO) will be available to support parishes with reviewing audits and planning next steps.

Eco Church

Parishes are encouraged to register with Eco Church and progress through their awards to engage 'hearts and minds'. The Diocesan Environment Adviser (DEA - to be appointed) and newly-formed Eco Church group will support this.

Creation Care Leads

The NZC PO will work to develop a network of Creation Care Leads across the 18 deaneries to support communication, engagement and promote a cycle of feedback on NZC planning and implementation between parishes and Church House staff.

Communication and engagement

The Diocesan NZC Communication Strategy (to be written by NZC PO) will include parish engagement. NZC comms materials produced by National Church will be disseminated to the relevant stakeholders and signposted on the diocesan website. NZC PO to run campaigns promoting energy reduction and switching to a green tariff.

Carbon Literacy Training

NZC PO to share details with parishes of the accredited Carbon Literacy Project (CLP) training course offered by National Church. Parishes are encouraged to take up the CLP's new Carbon Literacy Toolkit Course suitable for use by a home group or Lent Course over a series of weeks.

Data gathering

Diocesan staff will continue to support EFT completion. The diocese will use this data to track progress

on decarbonisation and identify parishes eligible for National Church funding and external funding opportunities.

Funding and fundraising

Diocese to put forward eligible parishes for National Church NZC funding schemes and to administer NZC quick wins small grants scheme. NZC PO to circulate and signpost NZC fundraising resources provided by National Church and external NZC funding opportunities. Build relationships with external funders including local authorities.

DAC

The DAC is collating sustainability guidance for parishes in one document and reviewing how the QI format can be adapted to support NZC planning. DAC to promote consideration of NZC in every building project put forward.

9.2 Actions for Diocese from the National Routemap related to churches:

By the end of 2022

- Identify your top 20% of energy-consuming churches (**complete**) and invite them to create a Net Zero Carbon Action Plan. **Outstanding**

9.3 Projects for working with churches

- Encourage parishes, particularly the 20% highest energy users, to commission an Energy Audit, implement quick wins and adopt a NZC Plan.
- NZC PO to support parishes with reviewing their Energy Audit Report and planning next steps.
- BFMA/ NZC PO to administer small grants to parishes from National Church NZC Quick Wins fund.
- Promote Eco Church registration and award progression. DEA or new Eco Diocese Forum to support.
- NZC PO and Environment Forum to develop a network of deanery Creation Care Leads.
- Promote consideration of NZC in every building project discussed with DAC
- BFMA and NZC PO to support parishes in fundraising for NZC projects.
- NZC PO to run campaigns promoting energy reduction and switching to green tariff
- BFMA and NZC PO to organise NZC Roadshow to provide parishes with information and inspiration

9.4 Actions for Churches to take from the National Routemap

Churches were asked by General Synod in July 2022 to review the National Routemap and respond accordingly. These are the milestones for churches in the Routemap:

By the end of 2023

- 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. **Complete (at January 2024 31% registered & 29% of those awarded Bronze)**
- Every diocese to have a 90%+ completion rate for the Energy Footprint Tool. **Outstanding (65% completion rate in 2023)**

By the end of 2024

- 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 the end of 2025

- All churches to have energy-efficient lighting installed throughout, with timers and light and motion sensors where appropriate.
- No new oil boilers installed in churches after this date, subject to government action to connect rural communities to the grid.
- For those churches that are tourist destinations, review opportunities to install electric charging for coaches.

By the end of 2026

- 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 **(at Jan 2024 31% of churches registered of which 34% have secured awards, 4% of them Silver or higher)**.

By the end of 2027

- From 2022, the top 20% of energy-consuming churches in each diocese to begin to develop a Net Zero Carbon Action Plan, 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

By the end of 2030

- Complete all actions in your Net Zero Carbon Action Plan

10: Schools

Carbon footprint

Sixty schools in-scope: 3,322 tonnes CO₂e (2022 data)

Note: *Chester DBE works with 114 schools with a total estimated carbon footprint of 8,216 CO₂ p/a. The DBE has a significant degree of influence over 60 of these schools (Voluntary Aided and Diocesan Academy Trust schools) and their emissions of 3,322 CO₂ p/a are therefore in scope for Chester Diocese. The carbon footprint of the remaining 54 schools (Voluntary Controlled) is out of scope for Chester Diocese and their emissions of 4,894 CO₂ p/a will fall to the relevant Local Authority or Academy Trust. However, Chester DBE is taking a holistic approach and working to drive decarbonisation works and behaviour change across all 114 schools.*

10.1 Strategy

Chester DBE has been working with DBE Services and Blackburn DBE for the past four years since 2019 to formalise our strategy for schools, with a Chester DBE Decarbonisation Committee meeting termly since autumn 2022 to fulfil this purpose. As Chester DBE has no significant capital of its own to directly fund any decarbonisation schemes, we are working with DBE Services as they establish their national Church of England Strategy for decarbonising schools.

The DBE has committed to fund heat decarbonisation surveys for ten VA schools; however, we have been advised to wait until DBE Services further establishes its national strategy and funding before undergoing these surveys. The DBE will continue to follow DBE Services advice in this area.

10.2 Actions for Dioceses from the National Routemap related to schools

By end of 2022

- Diocesan Board of Education to take the lead in the promotion of the Energy Toolkit in their schools. It is suggested that Diocesan officers connect regionally to build capacity and support through the establishment of 'Regional School Environment Groups'. **Underway.**

By end of 2023

- 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. **Underway.**
- 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. **Underway.**
- DBEs are to identify local opportunities through BEIS and the DfE School Procurement Frameworks to deliver smart meter installations across all school sites. **Underway.**
- 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. **Outstanding.**

10.3 Chester DBE's projects for working with schools

- Our communications strategy with original online content focused on monthly themes, launching in January 2024, will advise schools on saving money (and energy) through simple changes in attitudes, behaviours and cultures. This low-cost intervention will reduce carbon emissions.
- Following the DfE's announcement of additional DFC for Energy Efficiency works, we have been working with DBE Services to create a bulk buying scheme between the Dioceses of Manchester, Liverpool, Blackburn, & Chester to provide the best value for money in providing LED lighting and PV installations.
- Once the first phase of this has been completed, Chester DBE will work with DBE Services for future phases of the scheme alongside DBE Services national decarbonisation work.

10.4 Actions for schools to take from the National Routemap

By the end of 2024

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

By the end of 2025

- 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. (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

- Revise your Climate Action Plan to include Heat Decarbonisation Plans.

By the end of 2030

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

11: Chester Cathedral

Carbon footprint

Cathedral: 263 tonnes CO₂e (2021, from QODA consultancy report)

11.1 Strategy

Chester Cathedral aims to build on the achievements of 2023 and continue the work of the Routemap to Net Zero Carbon by 2030. A cathedral decarbonisation report was commissioned in 2022 and a feasibility study of decarbonised heating options was delivered in 2023. Replacing the gas boilers with low-carbon heating options is a priority, as they are at end-of-life. Funding is being sought to appoint a Sustainability Manager to oversee further NZC milestones and cultural changes.

In 2022 the Cathedral installed 206 solar panels, which supply the cathedral with approximately a fifth of its energy consumption and proactively switched to a 100% renewable energy scheme, well in advance of the 2024 target date. Plans are underway for the installation of energy-efficient LED fixtures and fittings in a main section of the cathedral and the installation of additional solar panels is under consideration.

11.2 Actions for Dioceses from the National Routemap related to Cathedrals

There are no actions in the National Routemap for Diocese which relate to Cathedrals.

11.3 Projects for working with Chester Cathedral

- NZC PO to organise event at Cathedral for parishes on solar PV and battery installation.

11.4 Actions for Cathedrals to take from the National Routemap

By the end of 2023

- All cathedrals registered for Eco Church and achieve Bronze. **Completed 2022**
- Once complete, read the sustainability review and consider how recommendations can be implemented. **Complete**
- All cathedrals to complete the Energy Toolkit. **Outstanding**

By the end of 2024

- 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.) **Complete**

By the end of 2025

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

By the end of 2027

- From 2022, all cathedrals to begin to develop a Net Zero Carbon Action Plan (**underway**), 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 (***feasibility study complete, options are being considered***)
- 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 (***options are being considered***)

By the end of 2030

- Complete all actions in your Net Zero Carbon Action Plan.



12: Theological Education Institutions

Carbon footprint

Emmanuel Theological College: tonnes CO₂e (currently being calculated - TBC Q1 2024)

12.1 Strategy

Emmanuel Theological College (ETC), whose administrative offices are housed in Chester's Church House, is a partnership between six dioceses in North West England; Blackburn, Carlisle, Chester, Liverpool, Manchester and Sodor and Man.

Buildings: ETC does not have its own buildings; it works at multiple locations across the regions and all office and meeting space is hired. It therefore has influence but not control over its locations and will work with partner venues to encourage reduction in their carbon footprints.

Travel: The vast majority of ETC's carbon footprint is produced by staff and student travel and it is working to collect more detailed data on this including scope to reduce car travel through train journeys and lift sharing (to be finalised January 2024). It already has an expenses policy that incentivises lift-sharing and is redesigning its expenses claims forms to capture better data on its carbon footprint.

Also in scope: ETC's catering provision and computer use, particularly online meetings and cloud storage are also contributors to its carbon footprint and are being reviewed.

Teaching: ETC has already done significant work to embed environmental teaching in its academic teaching and formation programme and is looking to be a resource in this area for partner dioceses.

Eco College: ETC to register for this new A Rocha scheme when launched in 2024.

12.2 Actions for Dioceses from the National Routemap related to TEIs

There are no actions in the National Routemap for Diocese which relate to TEIs.

12.3 Projects for working with TEIs

None identified at time of writing.

12.4 Actions for TEIs to take from the National Routemap

By the end of 2023

- Develop a Net Zero Carbon Action Plan. **Complete**

By the end of 2024

- Incorporate environmental teaching and learning within syllabuses and practices. **Underway.**
- Register with Eco Church and achieve at least Bronze. Where sharing a Diocesan office, your Institution should be included in the Eco Diocese award. **Underway.**
- If you have travel and expenses policies, update these to encourage sustainable transport. **Underway.**

By the end of 2030

- Complete all actions in your Net Zero Carbon Action Plan.



13: Recommendations

To begin to achieve delivery of this plan, we make the following recommendations for immediate action. As well as listing these numerically, we have sectioned them into different themes.

Governance

- 1. To convene a Net Zero Carbon Working Group**, responsible for supporting implementation of the NZC Action Plan, to meet quarterly review and report on progress to relevant diocesan bodies (see Appendix 3 for proposed structure).
- 2. To build in an annual review.** NZC Action Plan to be reviewed, refined and re-forecast following EFT data release from National Church (end of calendar year) & brought to Bishop's Council with NZC Working Group progress report in Feb/March.
- 3. Diocesan Strategy.** NZC to be embedded as both a stream and a strand of work.

Staffing

- 4. Diocesan NZC Project Officer (appointed January 2024).** To drive delivery of NZC Action Plan across all areas of the diocese, mapping targets, improving data gathering systems and monitoring progress against National Church Routemap milestones. To lead on Communications Strategy, culture change and relationship management with key stakeholders.
- 5. Diocesan Environment Adviser (DEA).** (This role has been proposed but not agreed.) The DEA would work as part of the Outreach Team with a particular focus on parish engagement, the 'hearts & minds' and theological aspect of NZC and supporting Eco Church registration and award progression.
- 6. Develop NZC teamwork.** NZC Project Officer, Buildings for Mission Advisor and Diocesan Environment Advisor (if agreed) (all reporting to Director of Outreach) to collaborate and share regular updates to maximise impact of NZC work.

Funding

- 7. Secure NZC Funding from National Church.** Ensure diocese and parishes apply for available funding and use this to leverage additional external funding where possible.
- 8. Scope regional & local funding sources** such as local authority Carbon and Community Infrastructure Levy funds and build key relationships.

Communications

- 9. To write, adopt & implement a Diocesan NZC Communication Strategy.** Action to be held by NZC Project with the support of the Diocesan Comms Officer and Director of Communication (to be appointed), DEA (recommended), Buildings for Mission Advisor and the Outreach Team. Chester DBE & Chester Cathedral will produce their own NZC communication plans.

Collaboration across teams

- 10. To seek opportunities to work together as multi-disciplinary teams** within the Diocese (DBE, DBE Services, DBF, Cathedral) to share best practice on technological solutions and procurement options, retrofit delivery, alternative technologies, materials and construction methods.

This is to mitigate against an immature market facing significant demand from customers all seeking to

decarbonise their estates. By working together, we can eliminate duplications of research and design costs and look at where combined procurement can deliver better value for money.

Partnerships

11. To nurture strategic partnerships with other Dioceses & other civic organisations to learn and share resources/good practice. Focus specifically on those neighbouring the Cheshire area (Liverpool, Manchester and Blackburn) who share similar context, plus other Dioceses pioneering good practice. Work with key external organisations e.g. community energy groups and local authorities.

Human Resources

12. To ensure that our NZC 2030 goal is reflected in staff job descriptions, staff training (such as induction and Carbon Literacy training) and departmental plans.

13. To roll out Carbon Literacy training amongst senior staff in the first instance and encourage ownership of the NZC project.

Clergy and Lay training

14. To integrate carbon literacy and NZC into curate, post ordination and churchwarden training.

15. To explore a Lay Training Pathway for Creation Care Champions and others, as piloted in the Diocese of Leeds, nurturing passionate lay leaders who will take NZC forwards.

Policies

16. To embed NZC in formats for quinquennial inspections (QI) and archdeacon's visitations.

17. To review and update the Travel Plan and policy on travel expenses and introduce a Travel Policy to encourage sustainable travel.

18. To adopt a DAC Environmental Policy to ensure all advice & guidance given to parishes is in keeping with our NZC 2030 target.

Offsetting

19. To review future National Church announcements, policies and recommendations for offsetting of residual emissions from 2030 onwards, to identify the best approach for the Diocese.

Risk Assessment

20. To produce a Risk Assessment for the NZC Action Plan.

21. To ensure the risks to the DBF associated with global warming and climate breakdown are included in DBF's overall Risk Assessment.

APPENDIX 1

NZC Scope from National Routemap

The page below summarises which activities of the Church of England are in-scope of the NZC 2030 target set by General Synod in February 2020 or not.



Items in green are in scope by 2030.



Those in amber are in-scope but not until after 2030.



Those in red are out of scope

In scope 2030 NET ZERO

We will aim to measure and report these as soon as possible, as a first step towards making real and sustained reductions

The national EWG will review, and potentially expand this scope, every three years, from 2022 onwards, in line with reporting to General Synod

1. The energy use of our buildings:

Gas, oil, or other fuel use & electricity purchased (no matter the source it is purchased from – renewable electricity purchased is accounted for later) for the following buildings:

- **Churches**, including church halls and ancillary buildings. (This includes nonparochial churches, BMOs and others if they have their own utility supplies.)
- **Cathedrals** (all buildings within the green line forming part of the precinct)
- **Schools** where the DBE has a significant degree of influence (generally Voluntary Aided & Diocesan Academy Trusts) including halls/other buildings
- **Clergy housing, bishop's housing, and other staff accommodation** wholly owned by the Church (based on EPC grades and average reasonable use, not actual usage)
- **Church bodies' offices** including Church House Westminster, diocesan offices, and bishops' offices
- **Peculiars**, only if they come under faculty jurisdiction
- **Other diocesan property**, including common parts of tenanted properties
- **Theological Education Institutions** which are part of the Church of England

For all the above, tenants' energy use and mobile phone masts should be excluded if possible, e.g. if on their own sub-meters.

Floodlights managed and paid for by the local council should also be excluded if possible including the "well to tank" and "transmission and distribution" factors involved in getting energy to the building.

Electricity used to charge EV vehicles will be included within the above.

2. All work-related travel (e.g. the petrol / diesel used by archdeacons on visitations, CBC / DAC members on visits to discuss projects, reimbursable clergy and ordinand travel, reimbursable staff and volunteer travel, reimbursable train journeys, staff and clergy making reimbursable flights for work or ministry, coaches hired for school trips etc).

In standard Greenhouse Gas reporting definitions, these are our "Scope 1" and "Scope 2" emissions and some small elements of Scope 3 which are operationally simpler to include.

3. From this, and on the understanding that real reductions in energy use have been made, the following can be removed:

- Excess energy generated on site (e.g. from solar PV) and exported to the grid
- 100% renewable electricity purchased either from the Green Energy Basket or agreed companies, reviewed annually
- Green gas [certification approach still t.b.d.]
- Other reliable offsetting schemes, meeting national criteria to be developed.

NET ZERO AFTER 2030

These will be in our next phase of work.

Some dioceses may opt to include these in their diocesan 2030 targets.

4. All the emissions from major building projects (new builds and extensions, major reorderings, solar panel installations, major new heating or lighting systems)
5. Emissions generated from the farming / management of Church land (including church yards, unless fully controlled by local councils, and glebe land) less emissions sequestered through the farming / management of Church land (such as tree planting, soil improvement, and other nature-based solutions)
6. All the emissions (including upstream process & transport) from the procurement of any items we buy (e.g. pews for churches, paper & printing for offices, new cars for bishops, catering for events)
7. Upstream and downstream emissions from water and drainage
8. Downstream emissions from waste disposal
9. Emissions from building contractors, plumbers, electricians and the like
10. Carbon generated from use of emails and the internet in work-based contexts
11. Diocesan investments, if they are a material amount
12. Air-conditioning gasses

In standard Greenhouse Gas definitions, these are those parts of our "Scope 3" emissions which are within our influence to a significant degree.

NOT INCLUDED IN TARGET

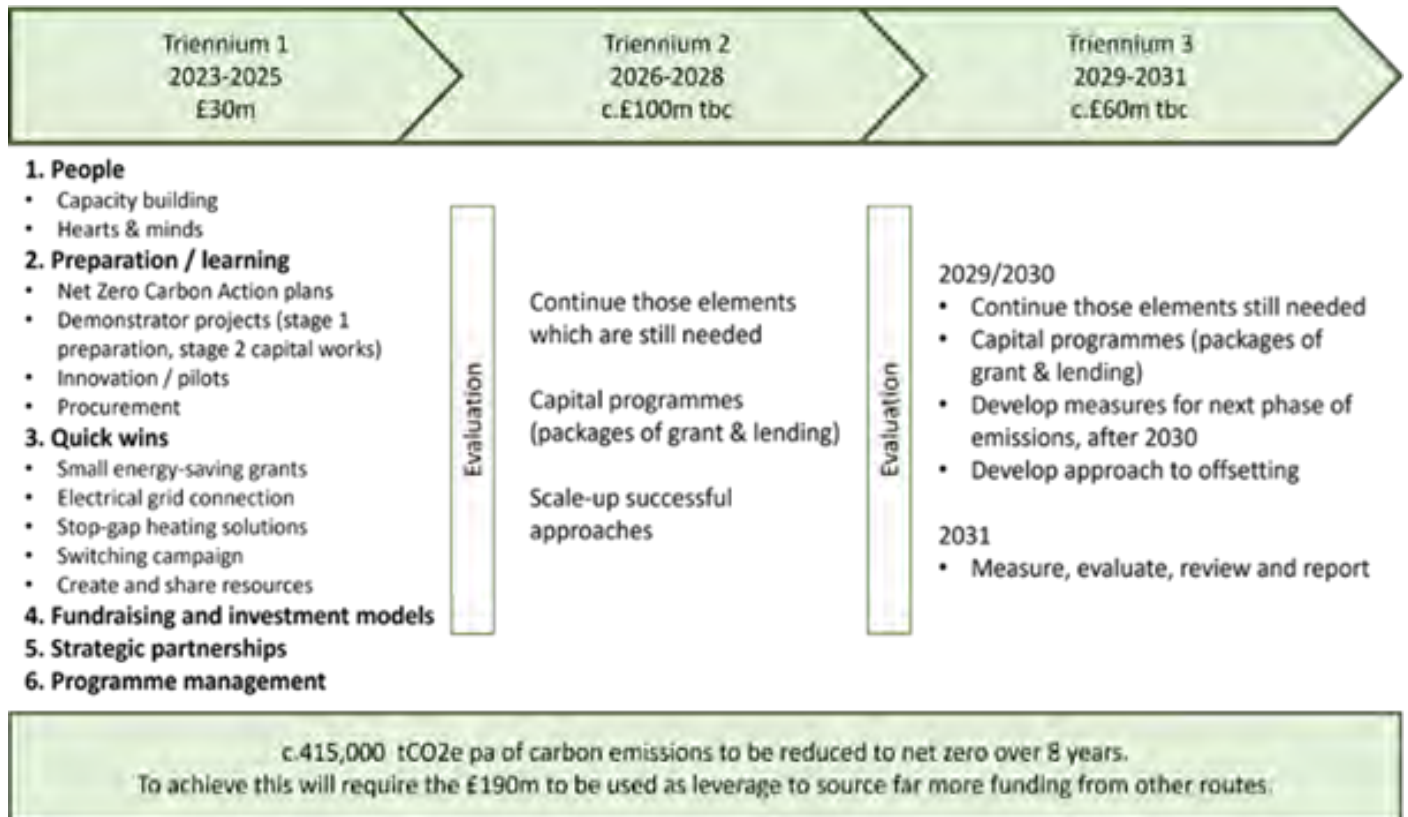
Out of scope of our target (but still within our mission to influence)

13. Travel of staff and clergy to and from their usual place of work or ministry
14. The travel of the public to and from church, school, and church events
15. Clergy family's & residents' GHG emissions (consumer goods, travel, holidays). The energy used to heat and light the housing, if over the average reasonable use above.
16. Personal GHG emissions from the lives of worshippers attending church, other church users (such as people attending a choir or playgroup), and overseas visitors
17. Schools over which we have very limited influence (generally Voluntary Controlled Schools which are fully controlled by Local Authorities) In standard Greenhouse Gas definitions, see below, these are either out of our scope or are scope 3 but largely outside our influence.

APPENDIX 2

Funding Scheme from National Church 2023-2030

The diagram below summarises the agreed priorities for the net zero carbon triennium funding:



Chester Diocese NZC Working Group

Net Zero Carbon Working Group

In adopting the Routemap to Net Zero Carbon in November 2022 the Diocese committed to working towards net zero in its carbon emissions by 2030, recognising areas in which it has authority and others where it can bring its influence to bear. The Net Zero Carbon Working Group provides a means for this to come about, bringing together Directors and others who share responsibility for diocesan actions in this regard.

Purpose

The NZC Working Group will support and facilitate the further development and delivery of the NZC Action Plan, in order to see progress towards the objectives set out in the Action Plan and its further iterations.

The NZC Working Group will:

1. Report to the Bishop's Council annually, through the Central Services Committee, in relation to matters which need the approval of the Diocesan Synod or the Chester Diocesan Board of Finance, and to inform them of the activity of the Working Group
2. Identify obstacles to progress, and work to resolve these.
3. Approve annual reports on NZC.
4. Through the NZC Project Officer, update other relevant groups/committees on the work of NZC Working Group, when appropriate (including the Bishops Staff team, the meeting of Directors, the Outreach Committee).

Membership and ways of working

1. Core members:

Chair (Interim): Archdeacon/ Director of Outreach

Secretary: NCZ Project Officer

Diocesan Secretary

Property Manager

DAC Secretary

Buildings for Mission Adviser

Director of Education / Schools Building and Finance Officer

Communications Officer or Director of Communications when appointed

Chair of Eco Diocese Forum/DEA

Other external contribution

2. The NZC Working Group will request the presence of other key staff at meetings as and when needed. This may include representation regarding Church House, Communications and Strategy.
3. A timed agenda will be shared before each meeting by the NZC PO (having been approved by the Chair), and minutes will be taken and circulated to all relevant parties.
4. The NZC Working Group will normally meet quarterly.



THE CHURCH
OF ENGLAND

Diocese of Chester

The Diocese of Chester is the Church of England primarily in Cheshire – but also covers some areas outside the county.
Chester Diocesan Board of Finance is a company limited by guarantee registered in England
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