

Environment and Net Zero Update

Diocesan Synod 18th November 2023

This report was written against the backdrop of the news that for one in every three days in 2023, the [world breached the 1.5 degrees Celsius threshold](#). This is the threshold that scientists believe is the upper limit if the world is to avoid dangerous climate change.

It was also written as a new report on [the state of nature](#) revealed one in every six species in the UK, and nearly half of the world's flowering plants are [facing the threat of extinction](#). This has implications not only for our fragile ecosystems, but also for our ability to discover vital medicines, and to feed the world's population.

But this is not a reason to give up. 1.6°C of warming is better than 2°C of warming, and protecting as many of our species and plants as we can is better than saving none. It may feel as though our part to play is small, but faith communities can offer vital witness, a powerful voice, and much-needed hope in a time of climate and ecological crisis.

There is much to be encouraged by in this report, and much more to do. We must continue with urgency, intention and action in our efforts to care for God's creation, in all that we do – in our churches, schools, communities, workplaces and homes – for the sake of God's world.

Net Zero Carbon

In March 2023, this Synod endorsed a net zero carbon action plan that seeks to deliver our target of achieving net zero carbon emissions by 2035, and fulfilling – as far as possible – the milestones in the national [Routemap to Net Zero Carbon](#).

The accompanying carbon emissions report, which will now be produced annually, demonstrates that while there is a long way to go, and faster, more urgent action is required, progress is being made in key areas. We are particularly encouraged by the 11% reduction in net emissions in our churches, and overall reductions across our travel.

We can confirm that across all parts of the diocese, we have been meeting our priority actions for this period (2023-2026). In summary:

Churches

- **Policies:** The new faculty jurisdiction rules and due regard for net zero are being applied by DAC, with more guidance in development and opportunities for precedents and test cases emerging. A joint statement from our Bishops is available on our position on achieving net zero carbon.
- **Finance:** Funding applications are underway for Church Commissioners funding, pilots for different finance models are being explored, and churches are being made aware of national fundraising webinars as well as local funding opportunities
- **Capacity and training:** The DAC and Environment Team have all attended heat pump training since March
- **Planning:** Over 235 subsidised energy audits have now been delivered since 2018, with opportunities for churches who meet specific criteria eligible to receive a funded heating surgery
- **Priority churches:** a forum for larger churches has been set up, meeting to share learnings, progress and challenges. Eight churches are being identified for a potential national pilot, to test different net zero solutions.

- **Engagement:** event held to support churches to turn decarbonisation reports into deliverable action plans.

Schools

Since 2020, Voluntary-Aided schools falling under the remit of ODBE have received just under £1.5m investment towards net zero measures; £1.1m from School Condition Allocation (SCA) and the remaining £400K from Devolved Formula Capital (DFC). The percentage of SCA directly used for the reduction of carbon this year was 17% (£425K). A further 25% of projects made energy saving improvements via upgrade of insulation as part of roofing works/window upgrades.

33 DFC projects have been approved at school level since December 2022 for decarbonisation measures using the additional funding from the Department for Education. Around 80% of projects have been for LED lighting with some solar panels and window upgrades.

Feasibility studies have been undertaken for the oldest boilers and schemes are being developed for their replacement.

23 schools have taken advantage of the opportunity to discuss their plans with ODBE via online drop-in sessions.

Clergy housing

Our new Director of Property started on 1 August 2023, and is now preparing an implementation plan for our net zero investment programme into clergy housing. This plan will be going forward to Buildings Committee in November, and then to Bishop's Council in December. It is involving bringing in additional resource to the team, gathering data to support prioritisation, and starting work in early 2024 (with a pilot vicarage retrofit having been carried out in 2023).

It is important to note that the Turner & Townsend report on clergy housing is now two years old and construction cost inflation over that period has been at least 25%. Our figures will need to keep pace with inflation even if it paints a challenging picture.

Offices, travel and procurement

- Policies are being reviewed and updated, including the diocesan travel and expenses policy which now actively encourages sustainable travel
- We have successfully recorded and reduced travel by diocesan staff and will continue to pursue policies in support of this
- Opportunities for onsite generation of electricity are being explored on commercial/office property.

We are exploring how to best record our procurement (scope 3) emissions, and plan to update Synod on this work in 2024.

Plans for the next 12 months

We continue to focus on translating strong foundations into deliverable change on the ground. Outcomes from funding applications are expected early in the new year – we hope this will enable us to support several high-priority churches take their energy audits and turn them into 'shovel-ready', deliverable projects, in anticipation of triennium round two funding in 2026.

We will be working hard this winter to support our sites manage energy carefully, particularly as many continue to be affected by high energy bills.

As the volatility in the energy market slowly starts to ease, we will re-visit opportunities for all parts of the diocese to move to renewable electricity tariffs at a competitive rate, in line with the Routemap milestone 4.2.10. This will include exploring ways we can support individuals to switch.

We will be supporting key national ‘demonstrator’ church projects develop their plans for decarbonisation, and applying this learning to future work.

And we will be ramping up our resources, upskilling opportunities, communications and peer-learning, to enable sharing of best practice, and to provide visible, real examples of how net zero can become a reality for the diocese.

Culture change

Net zero is but one vital part of the picture of how, as a diocese, we can care for creation in the broadest sense.

Since the diocese began its Environment Action Programme in 2019, Eco Church registrations have increased from 9% to over 25%, and those awarded have gone up from 1% to nearly 10%. While this is not in itself an impact measure, it is an indicator of the cultural change that is occurring amongst many of our parishes.

Three Eco Church-focused events were run in June, attended by over 150 people, and we have established networks of enthusiastic, committed people - some working locally as energetic members of their church, and some taking a formal voluntary role at deanery level. We have [seventeen deanery leads](#) working across fifteen different deaneries, engaging parishes in a variety of ways.

Since our report to Synod in March, we have:

- Successfully taken our Diocesan Synod motion, ‘Responding to the climate emergency’ [to General Synod](#)
- Contributed to the Land and Nature national Church of England working group
- Developed our [partnership with the local Wildlife Trust](#), running training events for parishes in churchyard management and species identification, and creating resources
- Contributed to advocacy at a local and national level through [the voices of our lead Bishops](#)
- Participated in a climate lecture series, sharing the theology of creation care.

Many parishes are embracing the challenges before them in a way that meets local needs and contexts. Some examples from our churches include:

- Hosting eco festivals, earth fayres and repair cafés to build relationships into the community and raise awareness of environmental issues
- Running Forest Church, Wild Worship and Muddy Church services to connect people with nature and creation
- Nurturing wildflower meadows, contemplative green spaces and community gardens
- Inviting climate pledges and commitments from church and community members
- Managing areas of churchyards for nature and recording the species found
- Supporting sustainable travel by hosting a car-share, installing bike racks, and providing bike repair services
- Speaking up on environmental issues through local advocacy groups, hosting events with local politicians, and engaging with MPs.

This is an outstanding testament to all that our parishes are doing locally, and as many parts of one body, they are offering an extraordinary contribution to caring for creation.

How do we make the transformational shift we need?

There remain many challenges to overcome- challenges of finance, capacity, expertise, and of knowing how to make the right decisions in a complex and ever-shifting context. So how can we better support all parts of the diocese to embrace such significant culture change?

Our environmental strategy calls for everyone, in all contexts, to step forward in prayer, advocacy and action. We will continue to support this as far as we can with resource, finance, guidance and our own advocacy. We look forward to new courses on the lay learning hub, open to anyone in the diocese, which will offer people the opportunity to develop their understanding about why creation care is a mark of Christian mission, and enable them to go deeper in their learning. We will be supporting churches with advocacy in the lead up to the next general election. We welcome the new national partnership with 'Caring for God's Acre', to support biodiversity in churchyards, and the resources and capacity that comes with it. We will build on our local networks, and we will be identifying barriers to churches wanting to achieve Silver Eco Church awards.

But this work can only be transformational if there is a real change of hearts and minds. 2023 marked the one-year anniversary of the Lambeth Call on Environment and Sustainability, which acknowledged that "the climate emergency is not just a physical crisis — it is also a spiritual one."

As part of the call, five areas of action were identified for people in parishes and dioceses across the Anglican Communion, the first two of which are about spiritual transformation:

We call on ourselves as bishops and the people of our Provinces, dioceses, and parishes to:

1. Treasure God's marvellous creation, recognising the profound interdependence of all life on earth and repenting of actions and theologies of domination, which have caused great harm to the earth and injustices to its people.
2. Recognise the triple environmental crisis [climate change, biodiversity loss and pollution] as a crisis of cultural and spiritual values and build on the reach and influence of the Church to challenge ourselves and humanity to transform our mindset away from exploitation of the natural world to one of relationship and stewardship, as embodied by the wisdom of the Christian tradition and by Indigenous peoples.

If our prayers, advocacy and actions are informed by these two commitments at both a personal and a corporate level, we will be well-placed to drive forward the urgent action required, ensuring that creation care remains a priority amongst the many challenges we face.

Hannah Mann

November 2023

Diocese of Oxford Carbon Emissions Report (2022 data)

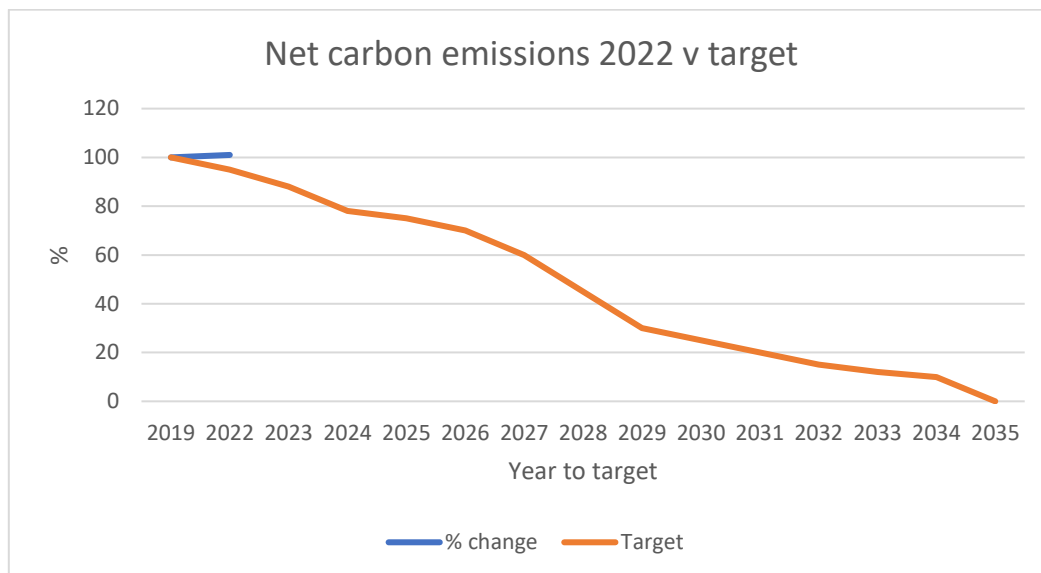
Presented at Diocesan Synod, 18 November 2023

Headline

Overall carbon emissions in 2022 have increased slightly compared to our baseline year, 2019. Carbon emissions from churches, offices and travel have decreased, schools have increased, but we have not been able to update figures for our clergy housing, procurement, or other buildings for which PCCs are responsible.

We have not reported 2020 and 2021, due to discrepancies in data from Covid-related closures.

We are reporting both gross emissions figures (calculated for all energy consumed) and net emissions figures (gross emissions minus any known energy consumed from either renewable energy generation or from an approved Church of England renewable energy tariff), where known, using weather adjusted data in 2022 for schools, churches and offices. This enables us to understand both energy efficiency improvements, as well as progress towards our ‘net’ zero carbon target.



Gross emissions

Gross emissions	2019	2019	2019		2022	2022	2019 to 2022
Source	Unit	Emissions	% of total		Emissions	% of total	% change
Churches	tCO2e	6150	37%		5858	34%	↓5%
Clergy houses	tCO2	2815	17%		2815	17%	0%
Offices	tCO2e	96	1%		73	0.4%	↓24%
Procurement	tCO2e	70	0%		70	0.4%	0%
Other buildings for which PCCs are responsible	tCO2e	1750	11%		1750	10%	0%

Schools	tCO2e	5284*	32%		6240	37%	↑18%
Schools travel	tCO2e	153**	1%		134	0.8%	↓12%
Reimbursed Diocesan travel	tCO2e	160	1%		67	0.4%	↓58%
Reimbursed parish travel	tCO2e	Unknown	Unknown		53	0.3%	n/a
Total		16478	100%		17060	100%	↑3.5%

Net emissions

Net	2019	2019	2019		2022	2022	2019 to 2022
Source	Unit	Emissions (GROSS)	% of total		Emissions (NET)	% of total	% change
Churches	tCO2e	6150	37%		5448	33%	↓11%
Clergy houses	tCO2	2815	17%		2815	17%	0%
CHO office	tCO2e	96	1%		73	0.4%	↓24%
Procurement	tCO2e	70	0%		70	0.4%	0%
Other buildings for which PCCs are responsible	tCO2e	1750	11%		1750	11%	0%
Schools	tCO2e	5284	32%		6240***	37%	↑18%
Schools travel	tCO2e	153	1%		134	0.8%	↓12%
Reimbursed Diocesan travel	tCO2e	160	1%		67	0.4%	↓58%
Reimbursed parish travel	tCO2e	unknown	unknown		53	0.3%	n/a
Total		16478	100%		16650	100%	↑1.0%

*The 2019 baseline figure for schools has been updated to incorporate more complete data and consistent methodology, this means it has increased from 5085 to 5284tCO₂e

**The 2019 figure for schools travel has been revised due to a baselining error. The corrected baseline figure is now included and will be reported against going forwards.

***All schools are on renewable electricity tariffs. These come under the following suppliers: Corona, EDF, Npower, Drax, British Gas, Total Gas & Power, and Engie. These are not included in the approved Church of England tariffs, and as such we have not counted them in our net emissions calculations. This is also true for our offices, which were with Yu Energy (Theale) and Brook Green (CHO).

Points to note

We have not been able to accurately update carbon emissions for our clergy housing, procurement, or other buildings for which PCCs are responsible. This is because:

- Clergy housing emissions reporting will be part of a new strategy agreed with the Director of Property, and will be based on understanding potential carbon savings from projects delivered, rather than energy consumption data.
- Procurement was estimated in 2019 based on key emission sources (waste, water, catering, printing, paper and IT equipment). Work is still to be done to understand how we accurately gather and report on this data.

- This is also true for other buildings for which PCCs are responsible, where we have no regular or reliable access to data. Current data suggests 229 halls and offices, but this doesn't include PCC owned housing.

In addition:

- Accepted/approved [renewable energy tariffs for churches can be found here](#), as not all green tariffs qualify. We have applied this approach across all our sites, which means we cannot net off electricity emissions from our schools or offices, as they are on alternative green tariffs.

Key observations

- **Growth:** the diocese is growing – since 2019, we have acquired six more churches, a further three schools and the office in Theale. This will have an impact on our overall emissions. Schools will be moving in and out of scope – since the baseline year we gained eight schools but lost five. This is going to make reporting like-for-like changes in schools' emissions a challenge. Schools are also funded to a government 2050 (not a 2035) target.
- **Trends:** It is encouraging to see an overall trend for key areas (churches, travel and offices) in emissions reductions. Based on information provided in the Articles of Enquiry, we know that 53% of churches have reduced their heating hours over the last year, and 55% have changed old lightbulbs over to LEDs. These changes, largely driven by the energy crisis, have likely resulted in the drop in emissions for churches.
- **Schools:** While school emissions have overall gone up, we can see a direct correlation between the investment into energy efficiency (largely through rolling out LED lighting schemes) and the resulting drop in emissions associated with electricity (down 13.7%).
- **Travel:** Travel is another key area of positive change, where habits of hybrid-working and more online meetings have continued after the pandemic.
- **Offices:** Investment in a new heating and cooling system in our offices has had an impact on energy efficiency in the building, alongside Friday closures during August.
- **Low-hanging fruit:** The positive results will be largely based on securing the 'low-hanging fruit', in line with our net zero carbon action plan. We will continue our work on energy efficiency, with the aim of achieving a drop in emissions of 25% by the end of 2025, which would keep us on track for our target. Currently only 21% of churches have confirmed they are on an approved renewable electricity tariff, so increasing this could have a significant impact.
- **Technology:** We have yet to roll-out any new technologies across our sites, as this work gets underway, we would hope to steepen the downward curve of emissions towards our 2035 target.

Further information

- For details on how we arrived at these calculations, please contact the [Environment Team](#). Emissions were calculated using best available data, extrapolating from a reliable sample where necessary, and working with UK government carbon emissions conversion factors for 2022.
- We are using the national Church of England definition for net zero calculations, which can be found in the [Routemap to Net Zero Carbon](#) on page 68; and therefore, we are not including parish scope 3 (indirect) emissions.

Hannah Mann and Alison Riggs, November 2023