

St ALBANS DIOCESAN SYNOD

15 October 2022

Net Zero Carbon Strategy and Action Plan**Introduction**

Several papers are being brought to Diocesan Synod for consideration and decision. Several factors combine so that it is timely to move forward:

1. We have agreed a Diocesan Environmental Policy, but the next stage is to indicate how we will implement (at least the first stages) action.
2. The National Routemap to Net Zero Carbon was approved by General Synod in July, with significant responsibility lying with dioceses to implement.
3. There is pressure for action within the diocese, including a resolution passed by one Deanery and regular lobbying to the diocesan office.

Attachments

- **Diocesan Net Zero Carbon action plan: working together towards Net Zero Carbon by 2030**
This paper gives an overview of the net zero carbon work. It has been prepared by Rachel Johnston, Diocesan Environmental Officer. This paper refers to two appendices (below)
- **Net Zero Carbon Action Plan (Appendix 1)**
Developed from the call to action points within the national Routemap. .
- **Net Zero Carbon Initiatives (Appendix 2)**
This is a short description of initiatives that are currently underway – to demonstrate practical implementation of the action plan.

Net Zero Carbon Recommendations

The Diocesan Net Zero Carbon action plan: working together towards Net Zero Carbon by 2030 requests Diocesan Synod to affirm:

- a) That the Diocese should reaffirm the requirement for every part of the Diocese to respond with utmost urgency to reduce and offset carbon emissions;
- b) That as part of our response to the NZC by 2030 target set by General Synod, the Diocesan Action Plan should be adopted and incorporated into the policies and planning of every sector of the Diocese;
- c) That we will support the use of existing budgets and resources to facilitate the steps included in the *Action Plan*, and to seek further funding and resources as required to enable all actions designated as 'within scope' of the 2030 target to be completed accordingly;
- d) To establish regular monitoring and reporting on progress towards the NZC target for Diocesan Synod, and providing all information and reports as required by the Church of England for the purposes of tracking progress towards the NZC by 2030 target.

Divestment Resolution

1. A resolution for Synod is proposed to formalize the policy of divestment in fossil fuels:

This Synod requests the St Albans Diocesan Board of Finance to commit to divest from any current investments in fossil fuels and to commit to no future investment of funds in fossil fuels companies.

This Synod further requests the St Albans Diocesan Board of Finance to consider with those companies investing on behalf of the Diocese how to:

- a) engage critically on climate change in respect of the full range of investments;**
- b) implement an approach to move the entire diocesan investment portfolio to be zero carbon;**
- c) pursue investment in accordance with Diocesan policies on social justice, sustainability, and the environment, for example in affordable homes, renewable energy, or forestry.**

This motion covers the requirements for Silver Eco Diocese.

The Diocesan Net Zero Carbon Action Plan: working together towards Net Zero Carbon by 2030

Introduction

In February 2020 General Synod passed a resolution for all sections of the Church of England to work to reduce carbon emissions to Net Zero Carbon by 2030.¹ In setting this visionary target, Synod made a 'clear statement of intent across the Church and wider society' to respond to the 'urgency of the Climate crisis', taking action to 'safeguard God's creation' and to protect the poorest and most vulnerable from the injustice of climate change. The resolution called for 'urgent consideration' of the steps required to reach net zero emissions by 2030 in order that a plan of action could be drawn up to achieve that target.

Diocesan Synod was briefed on this resolution in October 2020² and in response set a challenging target for our Diocese to achieve the Eco Diocese Bronze award by the end of 2022³. As part of this commitment, the Diocesan Environment Group was established⁴ to co-ordinate environmental work across the Diocese and to ensure that the key objectives and practical actions included in our Environment Policy (revised and approved in June 2022)⁵ were embedded in all policies and working procedures. A key objective of this policy is the *Net Zero Carbon Action Plan*, (Appendix 1), developed in line with the strategy set out in the Church of England *Routemap to Net Zero Carbon by 2030*⁶ debated by General Synod in July 2022.

Together with the supporting work on defining Net Zero Carbon⁷ the *Routemap* forms the basis for our Diocesan *Net Zero Carbon (NZC) Action Plan* which expresses in practical terms how our Diocese will respond to Synod's 'Call to Action'.

Reaching the Net Zero by 2030 target

There are major challenges to be overcome in achieving the net zero 2030 target, not least the limited financial resources of the diocese, individual churches, and our schools. Although a limited amount of diocesan funding was introduced at the June Diocesan Synod⁸, there is continuing uncertainty about national church and/or government funding to enable our Diocese to address the scale of the challenge and invest in any technological advances in the future.

Yet it is vital that we begin our response with the utmost urgency. Jim Skea, Chair of the IPCC Working Group III wrote in April 2022, 'It's now or never, if we want to limit global warming to 1.5C; without immediate and deep emissions reductions across all sectors, it will be impossible.'⁹ In the words of the Joint Statement issued by the Ecumenical Patriarch Bartholomew, Pope Francis, and the Archbishop of Canterbury in October 2021, 'This is a critical moment. The future of our children and our common home depend on it.'¹⁰

¹ <https://www.churchofengland.org/news-and-media/news-and-statements/general-synod-sets-2030-net-zero-carbon-target>

² [DS-20-05-Becoming-an-Eco-Diocese.pdf \(anglican.org\)](#)

³ <https://www.stalbans.anglican.org/wp-content/uploads/DS-Minutes-2020-10-17.pdf>

⁴ [Diocesan Environmental Group - Constitution.pdf](#)

⁵ [Diocese of St Albans Environmental Policy.pdf](#)

⁶ [GS 2258 Routemap to Net Zero Carbon.pdf \(churchofengland.org\)](#)

⁷ *National definition of the scope of net zero carbon for the Church of England*, Appendix 1 [GS Misc 1262 EWG update.pdf \(churchofengland.org\)](#)

⁸ DS 22 05 Approved Diocesan Synod, 18/06/22

⁹ [UN climate report: It's 'now or never' to limit global warming to 1.5 degrees | UN News](#)

¹⁰ [Joint Statement on the Environment.pdf \(archbishopofcanterbury.org\)](#)

We will produce a costed plan by the end of 2023 based on the evidence of recent pilot studies and research such as the Wayfinders Project,¹¹ clearly stating our financial limitations. Rather than committing to specific absolute reduction targets we will make realistic costings based on the best current information available, with the aim of achieving our net zero ambitions.

Despite these limitations, the Diocesan Action Plan presents a credible path to meet the 2030 deadline, and the following sections provide further information on how these ambitions can be achieved.

Overcoming challenges

As with the national *Routemap*, the primary focus of our *NZC Action Plan* is to follow the steps outlined in *The Practical Path to Net Zero Carbon for Churches*¹², bringing together key actions to be taken to improve management of energy and to reduce carbon emissions year-on-year with respect to our church buildings, travel and land. It prioritises ‘quick wins’ to reduce emissions until the necessary research and planning can be carried out, and resources obtained for further work.

It will be noted that the Diocesan *NZC Action Plan* is more developed with respect to buildings. Evidence from the 2012 Baseline study¹³ and from the first two years of the Energy Footprint Tool enables us to identify and target the greatest sources of harmful emissions so that our actions will have the greatest effect¹⁴. With the current turbulence in the energy markets it is essential that our Diocese supports effective management of energy by promoting the Energy Footprint Tool¹⁵ for our church buildings and developing tools in line with the Church of England Toolkit¹⁶.

One key change would enable most of our buildings to become carbon neutral within the projected deadline of 2030. Switching to an approved 100% renewable energy tariff as soon as possible would dramatically reduce the Diocesan carbon footprint. National criteria are now being published annually by the Church of England to enable churches to determine which energy tariffs qualify as net zero, with a list of qualifying suppliers of both green electricity and gas.¹⁷

The DAC guidance leaflet published in January 2021¹⁸ provides additional practical advice for parishes, which together with information and links on a range of environmental topics will be incorporated into the new Diocesan website information hub. This will complement the suite of resources currently being developed by the Church of England (see below). In addition, evidence will be gathered from preparatory work in the form of NZC initiatives ranging from a Diocesan NZC grants scheme to installation of EV charging points at Holywell Lodge (outlined in Appendix 2: *Net Zero Carbon Initiatives launched in 2022*).

¹¹ [Wayfinders Report - full findings FINAL Mar 2022.pdf](#)

¹² [the-practical-path-to-net-zero-carbon-for-churches-FINAL-April-2020.pdf](#)

¹³ *Our Current Carbon Footprint*, Appendix 2 [GS Misc 1262 EWG update.pdf \(churchofengland.org\)](#)

¹⁴ *Energy Footprint Tool 2019: Results and understanding concerning the carbon footprint for church energy use* Dr Sam Nunney, [Energy Footprint Tool 2019.pdf \(churchofengland.org\)](#) *Energy Footprint Tool 2020* Dr Sam Nunney, [EnergyFootprintTool2020.pdf \(churchofengland.org\)](#)

¹⁵ [Energy Footprint - Diocese of St Albans \(anglican.org\)](#)

¹⁶ [Energy Toolkit | The Church of England](#)

¹⁷ [Green-Energy-Companies-and-the-Energy-Footprint-Tool-August-2021-FINAL.pdf \(churchofengland.org\)](#)

¹⁸ [Advice-to-parishes-on-NZC-based-on-the-DAC-strategy.pdf \(anglican.org\)](#)

Our target is to reduce carbon emissions to as close to zero as possible, within only eight years. The Church of England is aiming for less than 10% of the current carbon footprint to remain by 2030¹⁹ with offsetting make the 2030 target achievable. Based on the evidence quoted in the *Routemap*, 'it will be possible to achieve Net Zero Carbon by 2030 for the activities in scope (see below) of the net zero carbon target.'²⁰

The Diocesan Action Plan does not include details of how we will approach 'offsetting' since our focus must be to reduce carbon emissions, but our ongoing research is focussed in three main areas. Firstly, we are monitoring the developing understanding of the value of land including church land for carbon sequestration with its additional benefit for biodiversity. Secondly, we are actively investigating the opportunities that community energy projects provide for churches both to benefit from generating renewable energy for their own consumption and to contribute to meeting local energy needs by exporting surplus energy. Thirdly, we are researching the long-term benefits of projects from organisations such as Climate Stewards²¹ which are fully accountable and verifiable, offering benefits to those in areas of the world most affected by climate change.²²

Implementation

The Diocesan *NZC Action Plan* contains dates by which the various steps should be started and/or completed. There are two main factors which govern the extent to which these dates can be achieved and the overall progress towards Net Zero: areas within the scope of our NZC target and the extent to which those areas are within Diocesan control.

Synod will already be aware that after extensive consultation the Church of England has adopted an agreed definition of Net Zero Carbon by 2030, in line with government and other major organisations. Based on this preparatory work²³ our Diocesan *NZC Action Plan* addresses those areas described as 'in scope' and does not include other activities defined as 'in scope after 2030', such as carbon emissions from new building projects or church land. The 2030 target is, therefore, not the end point for our work, but part of a rolling process of monitoring, evaluation and adjustment of our policies concerning energy management.

Moving forward with urgency to complete the actions in the Plan will be vital if the Diocese is to reach its target, but the extent to which the Diocese can control progress will vary. Many of the activities which have been defined as 'out of scope' concern the personal actions and lifestyle of our clergy, staff and congregations, and in these areas the Diocese will seek to influence and support positive changes. Ensuring that the 2030 target is met will require every section of the Diocese to work together and the initiatives outlined in Appendix 2 will provide encouragement, information and incentives to further this aim.

The timeline created by the Diocesan *NZC Action Plan* is intended to correspond as closely as possible to the Milestones and relevant considerations included in the national church *Routemap* and provides a logical pathway to which every section of the Diocese will be expected to align its own policies and procedures.

¹⁹ *Routemap to Net Zero Carbon by 2030 – Carbon Reduction Action Plan: A supporting paper from the Environment Working Group* [GS 2258 Routemap to Net Zero Carbon.pdf \(churchofengland.org\)](#) p2

²⁰ *Op. Cit.* p2

²¹ <https://www.climatestewards.org/>

²² <https://www.climatestewards.org/our-projects/projects-by-location/>

²³ *National definition of the scope of net zero carbon for the Church of England*, Appendix 1 [GS Misc 1262 EWG update.pdf \(churchofengland.org\)](#)

Resourcing the Action Plan

Achieving the steps set out in the *Action Plan* within the timescale will require not only funding but also capacity building at every level. A suite of resources is being developed by the Church of England including webinars on renewable energy topics²⁴, case studies²⁵, guidance on environmental fundraising²⁶ and training for DEOs and environment champions within each Diocese such as the Carbon Literacy training which is planned to run in our Diocese in Spring 2023. There are also excellent resources available from A Rocha UK supporting the Eco Church scheme²⁷ including the more wide-ranging carbon footprint tool, 360° Carbon²⁸ which is recommended for parishes which are already using the Energy Footprint Tool.

Further support is being planned by our Diocese, including the appointment of a Net Zero Carbon officer to provide expert advice on NZC topics such as switching to green energy tariffs and environmental fundraising. Promoting the Eco Church mentor scheme, ecumenical clusters, and parish environment officers to provide local support and sharing of good practice between churches will be supported by the sharing of case studies and experience via Diocesan communications channels.

Conclusion

Although the NZC by 2030 target is ‘hugely ambitious’, it is achievable, and the Diocesan *Action Plan* provides a credible pathway to achieve the necessary transition. In many respects ‘the process is as important as the target’²⁹ and the *Action Plan* marks the beginning of a shared journey towards our goal of a more sustainable, equitable and just future. We ask Synod to support the following recommendations.

Recommendations

Having reviewed the Diocesan *Action Plan* (Appendix 1) and taking into account the NZC initiatives outlined in Appendix 2, we ask Diocesan Synod to affirm:

- a) That the Diocese should reaffirm the requirement for every part of the Diocese to respond with utmost urgency to reduce and offset carbon emissions;
- b) That as part of our response to the NZC by 2030 target set by General Synod, the Diocesan Action Plan should be adopted and incorporated into the policies and planning of every sector of the Diocese;
- c) That we will support the use of existing budgets and resources to facilitate the steps included in the *Action Plan*, and to seek further funding and resources as required to enable all actions designated as ‘within scope’ of the 2030 target to be completed accordingly;
- d) To establish regular monitoring and reporting on progress towards the NZC target for Diocesan Synod, and providing all information and reports as required by the Church of England for the purposes of tracking progress towards the NZC by 2030 target.

²⁴ [Webinars on getting to net zero carbon | The Church of England](#)

²⁵ [Net Zero Carbon and Environmental case studies | The Church of England](#)

²⁶ [Fundraising for Net Zero Carbon and the Environment | The Church of England](#)

²⁷ [Eco Church - An A Rocha UK Project](#)

²⁸ <https://www.climatestewards.org/resources/360carbon/>

²⁹ [GS 2258 Routemap to Net Zero Carbon.pdf \(churchofengland.org\)](#) p1

Routemap to Net Zero Carbon by 2030 - action plan

No.	Action to be considered	National Milestone(s)		Diocese of St Albans action	Key players	Date
Dioceses - every diocese should consider:						
1	Establishing a net zero carbon working group: Bring on board key stakeholders from all departments, bishops, archdeacons, and look for existing commitments and delivery of policy change.	4.1	2022+	We will develop and strengthen the Diocesan Environmental Group to include a bishop, an archdeacon, a rural dean and key diocesan officers, consideration will be given to establishing a Net Zero Carbon Implementation Group reporting to the DEG and the DBF.	Bishop's Staff Bishops Council	Jun 23
2	Gathering data and work to it: Task someone with creating an annual greenhouse gas emissions report using the data from Research and Stats, promote the Energy Footprint Tool and the Energy Toolkit, and the range of other national tools as they become available.	4.1.2	2022+	We will develop an annual CO2e emissions report using data from Research and Stats. We are promoting use of the Energy Footprint Tool (c.42% of parishes in 2022). We will establish data collection for parsonage houses and diocesan office buildings, and when national trials are complete, establish data collection for Diocesan travel.	DAC Property Comm Staff	2023
3	Developing and agreeing a costed (costs and savings) strategy with Synod support. If possible, establish a local grant and/or loans scheme.	4.1.4	2023+	We will develop a costed strategy to bring to Synod for approval. We will establish a diocesan grant scheme from Autumn 2022.	Bishop's Staff Bishops Council Diocesan Synod	Jun 23 Oct 22
4	Taking a two-pronged attack (i) finding some quick wins and pilots which show what is possible, while (ii) focussing strategically on the highest energy use buildings in the diocese, saving energy and decarbonising heat.	4.2.4	2022-27	We will introduce pilot schemes using heat pumps and solar panels in diocesan buildings including clergy housing identified in 2022 with prioritisation of those with end of life energy systems and highest energy use buildings with the aim of saving energy and decarbonising heat. This has been agreed by the Property Committee subject to funding to be agreed by the DBF. Other technologies are emerging (eg hydrogen schemes) which we will consider as they become available. Church schools are around 50% of the overall carbon footprint and secondary schools are likely to be the highest-use buildings.	Property Comm	2023
5	Commissioning a desk-based Renewable Energy Feasibility Study for all buildings. With the results, consider opportunities for bulk procurement by implementing solutions on an intervention basis (e.g. installing PV panels or heat pumps) rather than a building basis. Add to your diocesan Net Zero Carbon Action Plan	4.1.5	2023+	We will use a desk-based feasibility study to consider patterns of energy use in similar buildings. Energy Audits to identify where there is scope to deal with a number of buildings in an area. We have an energy efficiency database and have used this to determine the properties sustainable technology can best be tested in.	DAC Property Comm Staff	2023
6	Increasing capacity and understanding: potentially use the national ‘train the trainer’ scheme in Carbon Literacy to increase understanding across the diocese.	5.2.4	2022+	Consideration will be given to developing local expertise through energy champions approach. The DEG is planning Carbon Literacy training and training the trainer events in autumn 2022 with a view to running online workshops including for local champions in Spring 2023.	DEG Staff	2023

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Routemap to Net Zero Carbon by 2030 - action plan

No.	Action to be considered	National Milestone(s)		Diocese of St Albans action	Key players	Date
7	Identifying required policy changes/levers for change: Create a DAC policy, set expectations for APCM reports, quinquennial inspections and archdeacon's visitations.			We will identify policy changes and requirements for reports and inspections for implementation in 2023/2024. DAC strategy in place. QI guidance in place. The new criteria includes heating, hot water, boiler age, adaptability to modern technology, EV charge point installed.	DAC Property Comm Staff	2023/4
8	Instigating discussions with local authorities about proposed low carbon heat networks over the coming decade and the potential for any buildings across the Church estate to be connected to them. Feed the results of these discussions into the Net Zero Carbon Action Plan and specific building heating replacement plans.			We will initiate discussion with local authorities in 2023. May be relevant to all categories of building in a locality.	Staff	2023
9	Working with your HR department to ensure that your response to the climate crisis and the 2030 net zero carbon ambition is reflected in staff job descriptions, staff training (such as Carbon Literacy training), departmental plans and Key Performance Indicators.			We will implement an HR review in 2023 to ensure that net zero carbon ambition is reflected in staff job descriptions, training, personal development plans and key performance indicators.	DBF Staff	2023
10	Promoting Eco Church and use the criteria to inform your planning.	4.2.9	2023+	Diocesan Synod has already committed to achieving Eco-Diocese status by end 2022. We will promote Eco Church with a target of 40% of local churches registered on the scheme, 30% with awards, of which one-third will have silver awards or higher by 2026. In addition, the target for the Diocesan Office will be to have achieved the Eco Church silver level by 2026.	DEG Staff	2023

Churches and Cathedrals - every cathedral and church should consider:

1	Passing a motion at your PCC or equivalent, to recognise the climate emergency, and the General Synod target of 2030. Make a commitment as a church.			We will encourage all parishes to recognise the climate emergency and make a net zero carbon 2030 commitment. We will provide model commitments for parishes to make.	Bishop Archdeacons Staff	2022/3
2	Measuring your carbon footprint with the Energy Footprint Tool. Report the results through your APCM or equivalent.			We will continue to encourage all parishes to measure their carbon footprint and report through their APCM. Target is 90% by end 2023!	DAC Prop Committee Glebe Committee Archdeacons Staff	2022/3
3	Using the <i>Practical Path to Net Zero Carbon</i> as a start point for an action plan.	4.1.4	2023+	We will encourage use of <i>Practical Path to Net Zero</i> . The DAC strategy guidance for parishes refers to this and to the "quick win" actions set out in following sections.	DAC Staff	2022/3

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No.	Action to be considered	National Milestone(s)		Diocese of St Albans action	Key players		Date
4	For most smaller churches, heated only a few hours per week or month, the carbon footprint is already very low. Here, good maintenance is key: looking after the roof, gutters, windows, and doors, and tackling the causes of damp.			We will continue to encourage small and low use churches to continue small scale maintenance measures.	DAC	Staff	2022+
5	The most common recommendation from the audits is to switch to a green electricity tariff. The analysis of the first year of the Energy Footprint Tool suggests that churches could reduce their collective carbon footprint by 22% through this step. Combining electric heating with a 100% renewable tariff makes a church - nearly - net zero carbon, leaving only their transport to consider.	4.2.10 4.2.11	2024 2024	We will strongly encourage parishes to swap to green electricity tariffs, as soon as 2022 turmoil in energy markets has settled. The Diocesan Office and several parishes are on "green" tariffs thorough Parish Buying.	DAC	Staff	2023/4
6	The second most common recommendation is on lighting. For light, the change required is often straightforward, with a shift to LED lamps powered by a 100% green electricity tariff, lighting becomes both energy efficient and net zero carbon. Movement and light-level sensors can be useful if lights are routinely left on.	4.2.13	2025	We will strongly recommend parishes move to LED lamps with use of movement and light-level sensors where appropriate. This has been done at the diocesan office when lighting needs replacing but could - funding allowing - be speeded up.	DAC Committee	Prop Staff	2022+
7	The most cost-effective option is to 'turn off' lights and equipment that are not needed and review heating settings to reduce carbon emissions and save money on energy costs.			We will strongly recommend that parishes turn off equipment not in constant use and review heating settings. We will use the staff group at the Diocesan Office to champion further economy measures there; motion sensors have already been introduced in some areas and will be extended to others.	DAC Committee	Prop Staff	2022+
8	Taking appropriate steps to reduce heat loss, and to make existing systems as efficient as possible. Plan ahead for replacements when the current system reaches the end of its working life by creating a Net Zero Carbon Action Plan, including a Heat Decarbonisation Plan, using the national guidance.			We will strongly recommend that parishes develop Net Zero Carbon Action Plans including equipment replacement planning as part of a decarbonisation plan.	DAC	Staff	2022+
9	Avoiding making a large intervention for a small energy saving; all the materials you use have an embodied carbon cost.			We will encourage parishes to avoid interventions that make small energy savings.	DAC	Staff	2022+
10	Every cathedral and larger, regularly used churches should also consider: creating a Net Zero Carbon Action Plan, including a Heat Decarbonisation Plan, using the national guidance, as set out in the milestones above.	4.2.4	2022-27	We will strongly recommend that parishes develop Net Zero Carbon Action Plans including equipment replacement planning as part of a decarbonisation plan.	DAC	Staff	2022+
11	Every cathedral and larger, regularly used churches should also consider: actively planning and fundraise to implement their Net Zero Carbon Action Plan.	4.2.14	2030	We will provide information and training for parishes on funding opportunities.	DAC	Staff	2023+

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Routemap to Net Zero Carbon by 2030 - action plan

No.	Action to be considered	National Milestone(s)		Diocese of St Albans action	Key players	Date
Churches and Cathedrals - every diocese should consider ways to support this work:						
1	Embed the Fifth Mark of Mission in the work of the DAC and create an environmental policy, appropriate for your diocese.			We adopted a Diocesan Environmental Policy at Diocesan Synod in June 2022. This policy embeds the Fifth Mark of Mission in the diocese. Policy to be kept under review.	Diocesan Synod DEG	2022+
2	Encourage uptake of the resources that exist, such as the Energy Footprint Tool, <i>Practical Path to Net Zero Carbon</i> , webinar programme, and heating guidance.	4.2.5	2023+	We will continue to encourage all parishes to measure their carbon footprint and report through their APCM and to engage in promotions and raised awareness around net zero carbon initiatives.	DAC Staff	2022+
3	During visitations, Archdeacons to ask churches about using the Energy Footprint Tool, using the <i>Practical Path to Net Zero</i> to create an action plan, and about planning ahead for replacing their oil and gas heating.	4.2.12	2025	We will extend the content of Archdeacons visitations to include understanding, engagement and planning for net zero carbon.	Archdeacons	2023+
4	Carry out a skills audit of your DAC and recruit new advisors where needed.			DAC appointed July 2022. We will continue to monitor skills within the DAC (and Property and Glebe Committees) and add additional members where appropriate.	Bishop's Council DAC Staff	2023+
5	Identify your 20% of largest, busiest churches, and – to the degree capacity allows - proactively seek ways to support them, to plan for and achieve net zero carbon.	4.2.4	2022-27	We will use energy footprint data to identify churches that should be prioritised for net zero carbon planning and action.	DAC Staff	DAC Staff
6	Seek a firm who will carry out a free desk-top analysis of the churches most suitable for solar panels, and potentially EV car charging.			We will seek partnership with businesses capable of undertaking analysis of potential for buildings initiatives and EV car charging.	DAC Staff	DAC Staff

Education - every DBE should consider:						
1	Once schools understand how they are performing they need to be able to identify what the technical route is to achieve net zero carbon. The best way of doing this is to produce a Capital Asset and Climate Action Plan (referred to in other parts of this document as a Net Zero Carbon Action Plan) containing a Heat Decarbonisation Plan (HDP). The key to progressing schools towards the target is for them to find a bespoke route by commissioning these audits and establishing business cases to bid for funding required to deliver the projects that are identified. Without this information, and an appreciation of the technical solutions, progress may be halted.	4.3.3	2024-2026+	We will work with schools and Local Authorities to obtain HDP's funded by grants and capital funds. Batches of VA schools will have the plans completed by an external provider	DBE Staff	2022+
2	Reviewing the Wayfinders Project schools reports, available on the Net Zero Carbon Resource Hub, as a starting point.			We will review the reports and utilise as we consider best for our schools	DBE Staff	2023+

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3	Dioceses are encouraged to support the allocation of a significant proportion of the capital funding received, including capital funding for Boards of MATs (CIF or SCA as above), to fund projects outlined in HDPs. This would demonstrate progress against the HDP. Other capital works such as solar panels and LED lights could also be funded through school capital (through SCA). The significant barrier is the cost of the actual heat decarbonisation, for example, moving from fossil gas/oil to air-source or ground-source heat pump (especially as this may cost perhaps 3 or 4 time more than a gas replacement, although running costs may be lower). Where sustainable technology is comparatively expensive, it becomes difficult to justify and prioritise the limited sum of school capital funding available. These are issues that will have to continue to be addressed collectively as we progress towards 2030. There are some proposals for funding in the DfE draft Sustainability and Climate Change Strategy along with evaluation of best value for money approaches for retrofitting education buildings and developing retrofit and repair standards.			From September 2022 SCA criteria will place greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
4	Some local authorities, who have responsibility for school places, have resolved to build greener and more efficient school buildings. Dioceses should support this policy and there should be an understanding that all new buildings – whether funded through PSPB, SCA or Basic Need or any other means – would have to have a non-carbon heat source and in effect be a net zero carbon building, as proposed in the DfE draft Sustainability and Climate Change Strategy for all new school buildings to be net zero carbon in operation by 2023.			We will work in partnership with the DfE and local authorities to ensure that any new church schools or extensions provided to meet a basic need for school places minimise carbon usage	DBE Staff	2023+
5	Dioceses should also consider the use of well-established diocesan landholdings and woodland as an asset not only in terms of offsetting for the diocese but also for use as forest schools and activities that raise awareness and appreciation of the natural environment.			We will seek to audit and identify diocesan owned woodlands and work with and encourage schools to utilise local green spaces and woodlands	DBE Staff	2022+
6	Regional Environment Groups can work with schools to identify opportunities to decarbonise from the data collected by the EFT.	4.3.11	2022	We will work with regional groups to facilitate relevant and meaningful engagement with our schools	DBE Staff	2023+
7	Regional Environment Groups can look at batching applications for funding where possible.			We will work with regional groups to identify procedures to submit batch applications can be submitted	DBE Staff	2023+

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8	Project delivery can be overseen by Regional Environment Groups and reported to the Diocesan EWG.			We will work with regional groups to develop plans for shared oversight of projects including project delivery	DBE Staff	2023+

Education - every school should consider:						
1	Supporting school governing boards to make a formal declaration (for example, Let's Go Zero) to become net carbon zero by 2030 and encourage ex-officio governors to share good practices across the school and church community on this issue.			We will strongly encourage schools to make a formal commitment to a National scheme	DBE Staff	2022+
2	Establishing an 'eco charter' for school councils to implement, identifying personal pledges to work towards the target as a collective.			We will provide an Eco Charter exemplar for schools to personalise and adopt	DBE Staff	2022+
3	Providing an 'Annual Resilience Statement' to review their declaration. A suggestion is that this would be a statement setting out how directors/ governors are measuring the school's climate resilience and <i>Schools can become beacons for their parish</i> targets, and addressing challenges <i>church, enthusing, leading the way and</i> over the short, medium and long <i>supporting the church's journey to be an Eco</i> term, including risks posed by <i>Church and on its route to Net Zero Carbon</i> . climate change (as per the DfE Response to Consultation – Diocesan Board of Education draft Sustainability & Climate Change Strategy). Future planning and decision making should also be taken with consideration of any impact on future generations.	4.3.2	2022+	We will strongly encourage schools to annually review their commitment and situation. We will collate VA schools resilience statements to review and to encourage schools to engage with the process.	DBE Staff	2024+
4	Switching to 100% 'green' energy tariffs through their procurement providers. Switching to renewable tariffs is an easy way for schools to reduce reliance on fossil fuels, and they can be encouraged to switch as soon as possible, while recognising that some are tied-in to local authority energy tariffs for a number of years.	4.3.7	2025	We will strongly encourage schools to switch to green energy tariffs where possible. We will also work with local authorities with regard to the bulk procurement schemes that many of our schools use.	DBE Staff	2023+

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5	The Capital Asset Management Plan and Climate Action Plan, both containing Heat Decarbonisation Plans (HDPs), provide a roadmap toward the net zero carbon target through retrofitting buildings. From these plans, a phased plan for implementing the HDP can be developed at a strategic level with Boards of Education. A significant amount of the capital works required to meet the HDP will be fabric work (to roofs and windows) which can be funded through school capital funding (funding routes include through CIF and SCA, although CIF is unlikely to provide support for decarbonisation projects directly without a significant contribution from the Academy). HDPs will also identify 'low hanging fruit' and will discuss habits and working practices that could be addressed relatively easily. Reducing energy consumption is a key first step.			We will strongly encourage schools to incorporate their HDP into their AMP, and to use their HDP to strategically plan for works which will reduce energy consumption. We will also analyse the HDPs of schools and plan SCA spending accordingly	DBE Staff	2023+
6	Integrating decarbonisation into estate strategy and planning in schools and increase efforts to ensure that schools work to set a sustainable strategy and vision for their estates. Integrating environmental considerations, an understanding of climate risks, and where adaptations are required, are key to driving change. The kinds of changes needed to school buildings include:			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
	• Upgrading thermal envelopes (where required) such as walls, windows, roofs, floors			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
	• Installing energy efficient boilers and heating equipment powered by 'green' energy tariffs, OR			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
	• Installing low carbon heating systems (such as heat pumps or biomass) and/or renewable energy sources (wind, solar, etc)			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
	• Switching to energy-efficient lighting and other building systems			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
7	Assessing the school's current approach and consumption of resources which will help to motivate sustainable practices – a requirement for Schools and DBEs that hold capital funding. Effective buildings maintenance, glazing, insulation and draughtproofing are all important to improving efficiency.			We will strongly encourage schools to develop an AMP that focusses on building efficiency	DBE Staff	2022+

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8	Other improvements to energy efficiency; for example, through swapping to LED lighting, and to include provision for any planned installation of renewables on buildings such as solar PV. This also has the benefit of reducing energy demand and the possibility that schools may have to review incoming electricity supply.			SCA criteria will support greater emphasis on energy efficiency and carbon reduction	DBE Staff	2022+
9	Promoting walking buses and to use sustainable transport where possible, and to plan for the installation of Electric Vehicle charging points where applicable (as recommended in the DfE draft Sustainability and Climate Change Strategy). Schools could work with local authorities to develop local travel action plans for safe active travel infrastructure around schools. Schools could review their programme of school trips, calculating the carbon emissions from these and reviewing the potential for trips with lower carbon emissions.			We will strongly encourage schools to promote green transport in their community and for their activities	DBE Staff	2022+
10	The habits of each school community and think about offsetting the carbon that schools cannot avoid using. For example, there could be a multi-year plan with ideas on how to reduce energy consumption and travel, fund-raise for charging points, plant trees, or offset in other creative ways.			We will strongly encourage schools to offset unavoidable carbon emissions	DBE Staff	2023+
11	Integrating the environment into the school programme; from utilising data from smart meters within the classroom to inspire sustainable habits, to exploring the grounds of the adjoining church yard and looking at plants to learn new scientific knowledge and skills. Identify and outline ways to teach this agenda, with a commitment to share resources where possible with their local church, and to share stories and experiences. This also helps to encourage community projects, such as shared electric vehicle charging points.	4.3.6	2023+	We are producing a climate based suite of resources for schools that will integrate the environment into both the curriculum and worship together with practical resources	DBE Staff	2022+
12	Although not within the scope of the net zero carbon 2030 target, schools can consider other environmental policies such as creating recycling points which can be used by the whole community, for example battery recycling.			We will encourage schools to work with their community on creating a wider initiatives	DBE Staff	2023+
13	With National and Diocesan support, encourage schools, children and young people to produce key documents (flyers, presentations, info sheets etc.) to make the declaration to work toward net zero carbon visible to the community.			We will encourage schools to work with their community and local church and make their commitment as visible as possible	DBE Staff	2023+

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Clergy housing and retired clergy housing - all clergy housing owners/managers should consider:						
1	Developing maintenance plans: All dioceses should have good records of the condition of their housing stock from the Quinquennial Inspections required every five years. These reports should identify works that can be carried out immediately, or within the next five years, that will help identify what maintenance works will help reduce energy waste; for example, replacing worn window seals and regular servicing of boilers and other heat sources. Dioceses should use this information to develop maintenance plans, leading to a programme of works.	4.4.3	2024	We will build on existing procedures in which the Property Committee receive quinquennial reports on the condition of the diocesan housing stock. The Property Committee will review the format for quinquennial inspections ensuring that issues and recommendations impacting on net zero carbon issues (both short and medium term) are clearly reflected in maintenance proposals. The Glebe Agents will adopt the parsonage house quinquennial inspection template for better comparison, understanding and to present a "diocesan" standard, which is relatable to nationally recognised data.	Property Comm Staff	2022+
2	Understanding stock condition: The Energy Footprint Tool allows dioceses to calculate the carbon footprint from clergy housing using an EPC. Some dioceses and parishes have started commissioning reports on their housing portfolios to help them plan for change, and a few have already started a programme of works focussing first on ‘easy wins’. Dioceses are increasingly talking to each other to learn from the experience of those who are further ahead. There is now a recognition that a better quality of survey of our housing is needed, than the standard ‘house purchaser type EPC’. The quality of these EPC reports can vary significantly and the recommended works arising from those reports are too limited in scope. EPC Plus reports cover a broader scope.	4.4.3	2023	We hold EPC ratings for approximately 50% of the housing stock and these are automatically required when any property is let. Quinquennial reports include comment on energy efficiency, short of a full EPC. Consideration is being given to training one or more members of staff to undertake EPC/EPC Plus inspections. We will use EPC information to improve the understanding of housing stock condition and focus attention on improvements to reduce energy usage.	Property Comm Staff	2022+

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3	Developing stock improvement plans: From the EPC Plus reports, a programme of works can be produced. The quality of our housing stock needs to improve significantly, meaning significant capital investment. The improvements should be focussed on the source of heating (replacing fossil fuel boilers) and heat retention capability. It remains to be seen whether the existing gas network can be re-used with hydrogen. Therefore, renewable energy solutions such as ground/air-source heat pumps, and (for off-grid applications), biomass boilers are likely to be seen as priority projects given the timescales we are working to. For buildings older than ten years, heat pump installation should be accompanied by insulation of walls, floors and roofs to improve energy efficiency. All of this work is highly disruptive and not to be recommended while a property is occupied. It needs to be recognised that most housing cannot be made entirely carbon neutral, but meaningful energy efficiencies can be achieved through good insulation and glazing improvements. Any building undergoing a major renovation should be prioritised for heat pump retrofit. Stock improvement plans should also assess the options for a building – whether to keep, retrofit or replace.	4.4.5	2024	We have significantly increased the sum available for repair and improvement to housing stock from 2023. On vacancy we will continue to review parsonage house performance and issues with out-going clergy and church wardens, with the aim of identifying the potential for reducing carbon footprint through a combination of replacing fossil fuel boilers and improving heat retention. We will continue to prioritise energy efficiency through the quinquennial inspection programme including: loft insulation (to 270mm where reasonably practicable), double-glazing installation when windows are replaced, energy efficient doors provided when replacement is needed, cavity wall insulation where possible, encouragement of water economy, water butts provided when gutters and downpipes replaced.	Property Comm Staff	2023+
4	QI Inspections: Consider reviewing QI inspection template to identify the current EPC rating where available and the opportunities for energy efficiency measures.			We will regularly review and improve the Quinquennial Report template which will include the EPC rating and opportunities for new and emerging energy efficient measures.	Property Comm Staff	2022+
5	EV charging: Review the potential for installation of electric vehicle (EV) charging points (where off-street parking is available) at change of occupancy.			We plan to introduce a scheme where clergy in diocesan housing can request installation of an EV charging point. Full details of funding this scheme are to be developed and discussions are being held with a potential external funder for these installations.	Property Comm Staff	2022+
6	Solar PV: Review the potential for installation of solar photo-voltaic panels (with battery if appropriate) at change of occupancy, or as part of a review of renewable potential across the estate.			We will run a pilot scheme to install PV panels at some parsonage houses where boilers are old, inefficient and/or oil-fired. Suitable properties need to have a predominantly south facing roof, minimal shading, be in good condition and meet other suitability criteria. The results of the pilot scheme will inform future decisions on installation of PV panels.		2022+

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7	Electric cookers: Encourage tenants to replace existing gas cookers with energy-efficient electric cookers at end-of-life.			Where kitchen improvements are being considered we will consider installation of electric cookers to reduce carbon footprint. In addition approximately one cooker per year is replaced without a full kitchen replacement.	Property Comm Staff	2022+
8	Reviewing government incentives: The UK government announced VAT relief on energy saving materials for residential accommodation in the Spring Statement 2022 and the Boiler Upgrade Scheme from April 2022.			We will continue to monitor government initiatives and take advantage of any schemes which will assist in reducing carbon footprint of our housing stock. We will improve our understanding of schemes that apply to the Board; most schemes assist only individuals.	Property Comm Staff	2022+

Offices - office managers should consider:						
1	Reviewing how offices are used, in terms of physical meetings, desk utilisation, and room rental. Simple layout changes can improve energy efficiency. Decide if you are in the right building.			We will review meetings policy between in person and online meetings, noting requirements for office based meeting space. We will review the future suitability of Holywell Lodge, including energy efficiency. We will keep potential relocation from Holywell Lodge under review, with a strong emphasis on office and meeting needs, location and energy efficiency.	DBF Property Comm Staff	2022+
2	Adopting a policy of 'flexible working' to allow staff, where it is appropriate, to work from home. Each situation is different, but it may reduce energy consumption within the building and reduce carbon emissions from travel to work (not currently included in scope). Once adopted, review desk utilisation as it may be possible to reduce the size of office buildings, thereby reducing energy costs and carbon emissions.			We have introduced flexible working in 2022 to include the option of home working and reduced requirements for office space and the potential for reduced diocesan office energy costs, but recognising that there are likely to be additional costs and emissions from home working locations.	DBF Property Comm Staff	2022+
3	Taking advice from an energy consultant.			We will continue to take advice from appropriate energy consultants. We will seek to add to the expertise on the Property Committee, including consideration buying in heating expertise.	DBF Property Comm Staff	2022+
4	Engaging with your staff, in order to work towards behavioural change. Carbon Literacy training can be a good option here, and national 'train the trainer' sessions have already been run in 2022, and more are planned.			We will continue to engage with staff about behavioural change, both within their diocesan roles and more widely. A staff group will be established to champion improved practices. Energy efficiency awareness will be incorporated into job descriptions etc from 2023.	Staff	2023
5	Using your Net Zero Carbon Action Plan, action the quick wins for reducing energy consumption – not leaving equipment on standby, turning off lights when leaving rooms, replacing lights with LEDs, appropriate heating and air-con settings etc.	4.6.3	2023	We will run a campaign early in 2023 to encourage improved practices within Holywell Lodge in respect of energy housekeeping habits. LED lamps have been installed at the Diocesan Office when lighting needs replacing, but if funding allows this process could be speeded up.	Staff	2023

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6	Budgeting and work towards major project work.			Within a five year financial plan we have a new approach to budgeting in 2023 that identifies investment needs. This approach will be continues in the remainder of the financial planning cycle to end 2026.	DBF Staff	2022+
7	Reviewing the potential for sustainable travel to the office: secure parking for bicycles, scooters and motorcyclists, changing and storage facilities for cyclists, and to install electric bike and vehicle charging points. Consider developing a Travel Plan for the office that incorporates the Travel Hierarchy, and offers staff benefits such as the Government's Cycle to Work Scheme.	4.6.4	2023 2024	We are investigating installation of EV charging points at Holywell Lodge. We will make the Government's Cycle to Work Scheme available to diocesan office staff and consult with staff on travel to work matters (after other HR consultation currently in progress, and probably not until 2023). However, the Commissioners have concluded that parish clergy do not meet the criteria for Cycle to Work and Bicycle Purchasing Schemes.	DBF Property Comm Staff	2022+
8	Ensuring equipment replacements are energy efficient.			We will continue to ensure that energy efficiency considerations are taken into account in equipment replacement.	DBF Staff	2022+

Communications - dioceses/cathedrals/regional bodies should consider:

1	Developing a clear and engaging communications campaign, covering all stakeholder groups, and ensure key messages are shared widely and consistently. Build on and localise the national communications strategy and make use of national materials where locally useful.	4.1.3 5.1.3	2022+ 2022+	We will develop (1) a clear communications strategy for specific initiatives in the net zero carbon area, and (2) ensure that decarbonisation is a constant theme in all general communication.	Bishop's Staff Staff	2022+
2	Communicating progress on Eco Diocese and share ways in which progress has been made with others.	5.1.3	2022+	We will include in communication strategies specific reference to progress in Eco Diocese progression.	Bishop's Staff Staff	2022+
3	Collaborating across dioceses in regional groups (such as those which Diocesan Secretaries belong to) to trouble-shoot, share best practice, make easier access to case studies and maintain momentum by providing peer support.	5.2.10	2023	We are engaging with other dioceses in eastern region to maximise opportunities for cooperation for mutual benefit. Net zero carbon initiatives have been identified as one of the priority areas for this collaboration.	Bishop's Staff Staff	2022+
4	Integrating questions into Archdeacon's articles of enquiry. Archdeacons are key because they contact all churches at times of change.			We will incorporate net zero carbon questioning into archdeacons visitation enquiries	Bishop's Staff Archdeacons Staff	2022+
5	Dioceses can use advocacy for environmental change.			We will consider the role the diocese should have in advocacy on net zero carbon	Bishop's Staff Staff	2022+

Communications - parishes should consider:

1	Joining the Eco Church scheme, which is identified as a significant vehicle for driving engagement and commitment at parish level and ties in with the Eco Diocese scheme above.	4.2.9	2003/26	We will continue to encourage parish involvement in the Eco Church scheme.	Bishop's Staff Staff	2022+
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2	Committing to sharing experiences (good and bad) via the DEO, Area Deans or Archdeacons.	5.1.3	2022+	We will continue to share experience through all communication channels.	Bishop's Staff Archdeacons Staff	2022+

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Communications - schools should consider:						
1	Using the Let's Go Zero campaign as one way to encourage schools and students to take action			We will encourage schools to join the Let's Go Zero campaign	DBE Staff	2022+

Communications - individuals should consider:						
1	Christians can get involved locally in public debate to influence policies that make decarbonisation easier to achieve.			We will take opportunities through diocesan communications to encourage churches to get involved.	Bishop's Staff Staff	2023

Capacity building - dioceses should consider:						
1	Most dioceses have a heating advisor and/or sustainability advisor, but not all; and similarly not all have a Diocesan Environment Officer. These staff/volunteers vary considerably in the time they have and the skills/background they came to the role from. Every diocese is encouraged to invest in these key roles and to include them in decision making functions.			We have considered options to strengthen technical expertise in the net zero carbon area to support the work of the volunteer Diocesan Environmental Officer. We will pursue the appointment of a specialist Net Zero Carbon officer specifically to provide support to parishes in areas of energy efficient technology, procurement, fundraising and implementation.	Bishop's Staff Staff	2022+
2	Discussing with the DAC and Archdeacons how decision-making can best incorporate net zero carbon ambitions.			We will review DAC operation in the area of energy efficiency projects. The DAC will take account of the environmental impact of proposals in giving advice on faculty applications and informally.	Bishop's Staff Archdeacons Staff	2022+
3	Making carbon-footprint reporting, and completion of the Energy Footprint Tool, a required element of the APCM each year.			We will give guidance to parishes that carbon-footprint reporting, and completion of the Energy Footprint Tool will be required in APCMs each year. The DAC team will provide wording for this.	Bishop's Staff Staff	2023
4	Providing a Lay Training Pathway for Parish Environment Officers, as piloted in the Diocese of Leeds.			We will seek to learn lessons from the pilot undertaken in the diocese of Leeds and launch a scheme for Parish Environment Officers including a lay training pathway.	Staff	2023+
5	Gathering and sharing case studies. Update church records on the OFS Renewables Map.			We will gather and share case studies and will investigate use of the OFS renewables map. DAC Heating Case Studies Project in progress for completion and sharing through workshop and online Autumn 2022. use of the diocesan website to share case studies will be continued and developed.	Staff	2023+
6	Having a named project manager for delivering net zero carbon. This could be a new role or part of an existing role but would have dedicated time to deliver this work.			We will appoint a specialist Net Zero Carbon officer who will be responsible for delivering the action plan.	Staff	2022+

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Work-related travel - every diocesan-level organisation should consider:						
1	Promoting the Energy Saving Trust Sustainable Travel Hierarchy and encourage it’s use for making travel decisions while considering the greenest mile is the mile not travelled.			We will develop a diocesan transport policy to assist in all decisions impacting on travel with the intention of minimising carbon footprint.	DBF Bishop's Staff Staff	2023
2	Updating expenses policies to encourage sustainable transport, to include consideration to offering UK government mileage rates for cycling, motorbikes and carrying passengers on business. Review opportunities to offer the Government Cycle to Work Scheme to employees.			We updated the diocesan expenses policy in August 2022 to maintain HMRC compliance but promote sustainable transport where possible. We will offer the Government Cycle to Work Scheme to employees.	DBF Staff	2022+
3	Making all new car purchases non-fossil-fuel vehicles.			We do not purchase any vehicles.	n/a	n/a
4	Reviewing options to offer EV leasing to all staff.			We do not offer leased vehicles to staff.	n/a	n/a
5	In appropriate locations, offering electric pool bikes.			We do not operate in locations where electric pool bikes would be appropriate	n/a	n/a
6	Reviewing options to reduce flights – consider virtual meetings and options for rail or coach alternatives. Where flying is unavoidable, offer advice on how to fly greener.			We have negligible international or long distance travel.	n/a	n/a
7	Reviewing opportunities and options to install charging for electric vehicles and bikes, secure storage for bikes, scooters and motorbikes and changing facilities/lockers at all building types, where appropriate to encourage behaviour change. Installation of EV charging may be eligible for funding through the UK government EV ChargePoint grant scheme or the workplace charging scheme.			We will investigate the possibility of EV charging points at Holywell Lodge. We will provide information and encouragement for parishes to consider EV charging points at church/hall locations.	DBF DAC Archdeacons Staff	2022+
8	Reviewing the potential to provide dedicated car parking spaces for electric cars and/or vehicles used for car share.			We will investigate the possibility of EV charging points at Holywell Lodge, and incentivisation of car sharing.	Staff	2023
9	Developing and sharing a recommended school coach hire policy which suggests the use of low-carbon transport wherever possible and contains a sustainable coach hire hierarchy (e.g. public transport has been assessed as not feasible therefore: hire an electric coach, hire a biofuel coach, hire an ultra-low emission coach, use a coach of the correct size).			We will encourage schools to develop a school policy which addresses low carbon transport hire	DBE Staff	2023+
10	The Channel Islands and the Diocese in Europe and the Diocese of Sodor & Man are likely to have proportionally higher emissions from transport than other locations. They may wish to prioritise development of a Travel Plan and investigate the lowest carbon practical transport options for regularly used routes.			n/a	n/a	n/a

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11	Investigating opportunities to work in partnership to promote active and more sustainable travel.			We will investigate partnership opportunities to promote sustainable travel.	Staff	2023

Funding options - dioceses and others should consider:

1	Preparing for funding opportunities, through carrying out energy audits, heat decarbonisation plans, and/or Net Zero Carbon Action Plans. Commission reviews of opportunities for renewables on Church-owned buildings and land. Know what works needs to be done, what it costs, and be clear on the benefits and the case for funding. Work with finance teams to create cases for lending/investment.			In appointing a specialist Net Zero Carbon Officer, we will build a source of knowledge about funding options and grant sources. The purpose of developing this expertise will be to support parishes in the energy efficiency approaches.	DBF Staff	2022+
2	Allocating some time from the network of Giving Officers to focus on supporting parishes with environmental fundraising.			We will ensure that the Diocesan Giving Adviser and Church Growth Officers are fully briefed and informed about environmental fundraising opportunities, sharing information and signposting wit parishes as appropriate.	DBF Staff	2023+
3	Fundraising at diocesan and regional levels for opportunities as they arise.			We will maximise our application to secure external funding for initiatives diocesan energy efficiency initiatives - both centrally and in parishes.	DBF Staff	2023+

Church land - all those responsible for land management should consider:

a	Reviewing with land agents the terms of tenancy agreements and use of the land. In terms of land use, a holistic approach that considers the benefits of increased carbon capture and biodiversity with food production and strategic value should be adopted. Opportunities to renegotiate terms with tenants should be investigated to support the take up of schemes which increase carbon storage and biodiversity. When new tenancies and licences are offered candidates with strong proposals in these areas should be given preferential consideration.	6.2.2	2022	We have a substantial portfolio of glebe land. We have engaged specialist consultants to advise on (1) the potential for solar generation and (2) the potential for forestry development, for glebe lands. We are considering energy efficiency improvements to glebe buildings and the implications on tenancy agreements.	DBF Glebe Comm Staff	2022+
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b	Where appropriate encourage greater carbon sequestration. It should be noted that this carbon may not contribute to the carbon budget of the landlord but be owned by the tenant as part of a scheme they have agreed to and be part of the business' own carbon budget. It should also be noted that many of the schemes that would sequester significant amounts of carbon, such as certain types of tree planting, would not do so within the period before 2030, but sequestration will continue to be required. Planting now is valuable in biodiversity terms and provides for future carbon storage.	6.2.1	2022	We have engaged specialist consultants to advise on the potential for forestry development, for glebe lands. We are also investigating the potential for forestry development in the HST development corridor with the benefit of government financial support.	DBF Glebe Comm Staff	2022+
c	Land should be included within environmental policies by Church organisations so that where opportunities present themselves, such as with a change of tenant or sale/purchase of land, climate and biodiversity (and wider environmental gains such as flood prevention, soil improvement, temperature moderation, and air quality improvements) are considered as part of the process. It is not reasonable though to include this land in the net zero carbon target for 2030 because, for the greater proportion of landholdings, the Church organisations do not have the ability to directly change the management of it.	6.2.1 (6.2.6)	2002 (2025)	The Glebe Committee have adopted an environmental policy. We have engaged specialist consultants to advise on (1) the potential for solar generation and (2) the potential for forestry development, for glebe lands. We are considering energy efficiency improvements to glebe buildings. We are encouraging parishes to consider how they can improve energy efficiency of their church hall premises, for which the DBF is custodian trustee,	DBF Glebe Comm Staff	2022+
d	Parishes to engage with opportunities to enhance the biodiversity of their churchyards through work such as that led by Caring for God's Acre. For example, letting grass grow longer, in places where it doesn't cause a health-and-safety hazard, can enhance biodiversity and store carbon, while reduced mowing frequency saves carbon emissions from mowing machinery.			We will continue to promote biodiversity elements within the diocesan environmental policy and encourage every parish to develop management plans for their churchyard or other land which protect and enhance biodiversity, contributing to carbon storage and reduced GHG emissions. A biodiversity working party will be established to develop a strategy to support parishes caring for their churchyard/church curtilage land and parish-owned land.	DEG Staff	2023+

Glossary and Abbreviations

Abbreviation (where applicable)	Term	Definition (where applicable)
APCM	Annual Parochial Church Meeting	
ASHP	Air Source Heat Pump	Extract heat from the outside air to heat your home and hot water ¹
	Biomass boilers	Work in a similar way to a standard gas boiler to heat your home and hot water using a renewable energy source such as wood pellets as fuel ¹
	Carbon footprint	a measure of the total amount of GHG generated by our actions
CEAN	Church Energy Advisors Network	
CO ₂	Carbon Dioxide	the most common GHG
CO _{2e}	Carbon Dioxide equivalent	a measure, usually in tonnes of gas emitted, indicating the global warming effect of the mass of GHGs in terms of what mass of CO ₂ would produce the equivalent effect
DAC	Diocesan Advisory Committee	
DBE	Diocesan Board of Education	
DBF	Diocesan Board of Finance	
DEC	Display Energy Certificate	shows the energy performance of public buildings
DEO	Diocesan Environment Officer	
EASA	Ecclesiastical Architects and Surveyors Association	
	Eco Church	A Rocha UK's award scheme for churches in England and Wales who want to demonstrate that the gospel is good news for God's earth
EFT	Energy Footprint Tool	The EFT and the Energy Toolkit allow all churches and church buildings around the country to enter their utility bills and find out their carbon footprint
ELMS	Environmental Land Management Scheme	Government schemes to reward environmental land management
	Embodied carbon	the CO _{2e} associated with the manufacture, installation, use, maintenance and disposal of a product or building, assessed by LCA

¹ Definitions from Annex 1 of [HM Government – Heat and Buildings Strategy \(publishing.service.gov.uk\)](#)

Abbreviation (where applicable)	Term	Definition (where applicable)
EPC	Energy Performance Certificate	An indicator of building energy efficiency, rated from A (very efficient) to G (inefficient).
EV	electric vehicle	
EWG	Environment Working Group	
GHG	Greenhouse Gas	the Kyoto Protocol covers seven main GHGs - carbon dioxide (CO ₂), methane (CH ₄), hydrofluorocarbons (HFCs), nitrous oxide (N ₂ O), perfluorocarbons (PFCs), sulphur hexafluoride (SF ₆) and Nitrogen Trifluoride (NF ₃)
	Green tariff	100% renewable electricity defined here or gas (defined as green gas and carbon offsetting)
GSHP	Ground Source Heat Pump	Extract heat from pipes that are buried in the ground to heat your home and hot water ¹
HDP	Heat Decarbonisation Plan	a plan for decarbonising building heating systems, often required for applicants for Public Sector Decarbonisation Schemes
	Heat network	Provide heat or cooling from a central source and distribute it to multiple customers in a building or across several buildings ¹
	Hybrid Heat Pumps	Combine heat pump and standard boiler technology to heat your home and hot water. Use of smart controls help optimise the system based on cost or efficiency ¹
H	Hydrogen	hydrogen can be one of the greenest forms of energy, depending how it is produced. Blue hydrogen - from splitting the hydrogen and carbon dioxide from fossil fuel natural gas, with the CO ₂ captured and stored. Green - uses renewable energy to drive electrolysis to split hydrogen and oxygen from water. Pink - uses nuclear energy to drive electrolysis to split hydrogen and oxygen from water ² .
	Hydrogen boilers	Work in a similar way to standard gas boilers to heat your home and hot water but use hydrogen gas rather than natural gas as fuel. This technology is not commercially available in the UK and is dependent on the extent to which hydrogen could replace natural gas in the gas grid ¹
	Hydrogen-ready boilers	Optimally designed to run using 100% hydrogen gas but are initially configured for use with natural gas to heat your home and hot water. Minimal component conversion is required to convert appliances to use with hydrogen. This technology is not yet commercially available ¹
JECSB	Joint Employment and Common Services Board	has accountability for NCI policies, budgets, finance and high-level decisions on general staff matters

² Definitions adapted from p26 of [British Energy Security Strategy \(publishing.service.gov.uk\)](#)

Abbreviation (where applicable)	Term	Definition (where applicable)
LED	Light-emitting diode	a lower energy lighting option than incandescent bulbs
LCA	Lifecycle Carbon Assessment	LCA gives a true picture of a building's carbon impact on the environment by assessing the carbon emissions resulting from the materials, construction and the use of a building over its entire life
MAT	Multi-Academy Trust	
NIB	National Investing Body	
NCI	National Church Institutions	support the mission and ministries of the Church and are comprised of seven separate legal entities as a common employer
NZC	Net Zero Carbon	a balance between the amount of GHG emitted to the atmosphere and the amount removed from the atmosphere
PSPB	Priority School Building Programme	
PCC	Parochial Church Council	
	<i>Practical Path to Net Zero</i>	a guidance note to summarise how churches can reduce their energy usage and carbon emissions
PV	Photo-voltaic	solar panel to generate renewable energy
QI	Quinquennial Inspection	
REGO	Renewable Electricity Guarantee of Origin	
RGGO	Renewable Gas Guarantee of Origin	
	Scopes	Scopes defined by the Greenhouse Gas Protocol (Scope 1 - direct emissions from combustion of fuels like oil and gas, Scope 2 - indirect emissions from the generation of electricity, and Scope 3 - other indirect emissions from sources that the organisation does not own or control)
	Solar thermal panels	Capture heat from the sun to provide hot water, typically in a storage tank ¹
TEI	Theological Education Institute	

Diocese of St Albans Net Zero Carbon initiatives launched in 2022/3

Introduction

This document introduces initiatives launched and planned in 2022/3 to implement aspects of the diocesan Routemap to Net Zero Carbon and the diocesan action plan. It describes work which is either preparatory for later initiatives or of a pilot nature.

It is recognised that the full task of achieving Net Zero Carbon by 2030 will be a multi-million pound task engaging the energy and determination of the diocese and its churches and people over the remainder of this decade. The essential nature of the initiatives described here are that they are being taken describe action in the period to end 2023.

Diocesan priorities and capacity building

The Diocesan Environmental Policy was presented to Synod in March 2022 and formally approved in June 2022. This policy confirms the commitment of the diocese to the broadest understanding of concern for the environment.

Following adoption of the National Routemap to Net Zero Carbon by 2030 the Diocese is developing its own Routemap with a detailed Action Plan describing the approach to be taken and identifying responsible bodies and target dates.

The Diocesan Environment Group will be strengthened through additional senior appointments and a Net Zero Carbon Implementation Group will be established.

There will be a thorough reporting regime on net zero carbon matters to Diocesan Synod and the Diocesan Board of Finance.

The need to make technical advice available to parishes is recognised, as is the limited capacity available in the commercial energy efficiency advice area. It is planned appoint a Net Zero Carbon Officer to serve the diocese with a primary responsibility for encouraging and supporting parish initiatives with technical advice on projects, including funding advice. The first-year operational cost will be met from additional investment income received in 2022 from the change in investment policy to total return on investment.

Establishing a baseline – energy usage and carbon footprint

Parishes have been able to upload data on energy usage from 2019 figures onwards and numbers using church buildings and halls via the diocesan online portal, to feed into the national Energy Footprint Tool. The results will give parishes a baseline and will enable us to identify the top 20% high-usage parishes as a priority. Schools are able to input data using the parallel Energy Footprint Toolkit, which is also being used for data from clergy housing and the Diocesan Offices.

Energy Audit grants

A limited number of subsidised energy audits have been available to parishes across the country annually through Parish Buying, the C of E procurement service. A similar framework will be used to offer grants to parishes in the Diocese of St Albans, initially from the Environment Officer's budget. From 2023 it is intended to fund energy audit grants from diocesan allocated funding as described in the next section.

Diocesan grant scheme for parish net zero carbon projects

It is intended to establish a diocesan Net Zero Carbon Grants Scheme to provide a contribution towards net zero carbon projects in parishes. Grants will provide pump-priming funding to encourage funding and fundraising within parishes, typically offering up to a maximum of 20% of project costs or £25,000 whichever is lower. A critical component of assessing grant applications will be the demonstration of additionality: that the project will not proceed with a diocesan contribution.

It is intended that initial funding for this scheme will be £300,000 allocated from additional investment income received in 2022 from the change in investment policy to total return on investment. It is anticipated that further funding will be allocated in subsequent years. The diocese anticipated that it will be able to access funding from national church strategic funds allocated for the period 2023-25 (and expected to be allocated for the period up to 2032).

Education

The DBE are working with the Local Authorities and using capital funds to ensure our schools have a Heat Decarbonisation Plan (HDP). This will enable each school to understand what is required to decarbonise their site and the data to apply for government funds through Salix. Capital allocations will have a greater emphasis on energy efficiency and carbon reduction projects. The DBE is developing and delivering a suite of resources for schools, 'Heart for the Earth', which will enable schools to theologically reflect and frame their commitment to environmental issues and carbon reduction. This project will be delivered over the 2022-2024 academic years and will draw on national initiatives such as 'Let's Go Zero' as well as promoting pupil voice and local parish interaction.

Sustainable energy sources in clergy housing

Until recently the focus on conserving energy in clergy homes had been to make improvements to improve heat loss. This included:

- Loft insulation increased to 270mm
- Weather stripping to windows
- Double glazing installed when windows are replaced
- Energy efficient doors provided when replacement is needed
- Condensing boilers have been installed when replacement was required
- Cavity wall insulation was installed

Without this work, the installation of heat pumps or other technology would have been pointless and serve only to increase the bills clergy paid. With this work now largely completed, the Property Committee wishes to trial new and emerging technology in clergy housing.

The Board has been wary of rushing to embrace unproven technology and the lessons learned from other dioceses should be born in mind. Two dioceses experienced significant issues with regards to

solar and other installations. However, there are opportunities to use trials to learn the impact of technology.

In setting the criteria for any research, the following have been adopted:

- Any trial should not be imposed on clergy
- Any impact will need to be fully assessed both against previous use (where possible) and equivalent properties without the technology in place
- Location – the trials should be spread across the Diocese
- Type of property – the trials should reflect the different property types
- Age of boiler – replacing newer boilers which already have a carbon impact would not be a sensible use of finances
- Type of boiler – there are three main types within properties in this Diocese gas, oil and LPG
- Double-glazing and insulation in place – current advice is to concentrate on those properties where easy gains can be made. This is counter-intuitive but important in allowing an effective trial
- The property has the potential for an EPC rating of “C” or above
- Vacant benefices should be prioritised due to the intrusive nature of the work
- The cost of repair and maintenance will be assessed across the lifetime of its use

The Property Committee will run a trial of sustainable measures within the housing it maintains which will include air source heat pumps.

A trial of solar panels will be initiated. Where a new parsonage is built sustainable heating and water (i.e. not limited to heat pumps) and solar panels will be installed where local planning and conservation area consents allow. Where land sales generate income the first call on that income is the improvement of the benefice. Sustainable environmental measures will be prioritised.

For all properties where sustainable systems are installed clergy will be asked to complete an energy assessment quarterly.

EV Charging points

Charging an electric car at home works out far cheaper than filling up a traditional petrol or diesel car or using public chargers. The requirements of charging a car at home are:

- off-road parking such as a driveway or garage
- be able to get the correct power to it
- a wall-box installed (the alternative is to spend 30 hours trickle-charging an electric car via a standard three-pin plug)

To date a limited number of requests for approval for car charging points have been received. The government grant ended in April 2022 but with electric and hybrid cars expected to exceed fifty percent of the market for new cars by 2030 this will change. The average cost of an electric car in the UK is almost £44,000.

Prior to the current escalation in energy prices it was estimated that the cost of running an electric car was roughly one-third the cost of running a petrol car and charging points tended to pay for themselves within the first six to eight months of use.

It is expected the charge points will impact on the cost of remedial works at the time of electrical tests in properties. This will be kept under review.

The Property Committee plans to implement a grant scheme where clergy are offered grants, repayable over a period of five years (or in full when their occupation of the house ends if sooner), to assist with the up-front cost of installing EV charge points.

Work-related travel

Traditionally diocesan meetings for governance, training etc were always held in person. This changed during the COVID-19 pandemic with extensive use of online platforms. Since 2021 a new pattern has been established with a mix of in person, hybrid and online meetings. A full evaluation of governance, training and similar meetings will be undertaken to establish the most appropriate format for future meetings with identification of the reduced carbon footprint resulting.

A new culture of expectations around travel and use of online means of contact where possible will be encouraged. A new diocesan expenses policy has been introduced which encourages reduced travel.

The diocese does not provide vehicles, but encourages use of private electric vehicles where possible. Electric vehicle charging points will be introduced at Holywell Lodge in 2023 to support this approach.

Church Land

The Glebe Committee has adopted an environmental policy which commits the Board as follows:

- to enter dialogue with the Board's land agents, tenants and contractors across the glebe estate to encourage them to undertake activities beneficial to nature and to maximise environmental and sustainable practices
- to ensure environmental considerations are a factor in agreeing new tenancies or renewals and regularly review land for opportunities to develop a 'greener' future
- to include discussion of the environmental issues and Synod's call to action as part of work of the Committee
- to recognise the environmental impacts the management of glebe produces
- to reduce the carbon footprint arising from land management, improve environmental performance
- to reduce any adverse environmental impact and increasing the Board's contribution to sustainability within the Diocese
- to reduce the carbon footprint of the work undertaken at Committee meetings by, for example, moving to paperless meetings

As a major landowner, the Church of England has a significant contribution to make. Within the diocese the Board owns 3,262 acres of Glebe land spread across 186 tenants. It is important to recognise the complex demands on land use which include the need to operate within statutory frameworks and to manage the land for the benefit of the stipends fund but within that framework it is still possible to consider the importance of wildlife, biodiversity and wider environmental concerns in every decision.

In relation to housing, the Glebe Committee is committed to a programme of installing sustainable energy with trials of electric boilers, air source heat pumps and other heating and hot water supply either begun or planned.

Solar Farms

The Glebe Committee and its land agent continues to explore alternative uses for its land and solar farms are large scale applications of solar **photovoltaic** (PV) systems, providing a source of safe, locally produced renewable energy for many years after construction.

As well as planning considerations the ability to connect a site to the national grid means that none of the current land holding could be easily transitioned but as technology develops this is likely to change.

Based on the average annual consumption of a household, for every 5 MW installed, a solar farm will power approximately 1,500 homes for a year and approximately 25 acres of land is required for every 5 megawatts (MW) of installation.

The scale of solar farms has tended to make their installation controversial. To produce enough energy for most power grids, solar farms need to use thousands of panels. This can take up a large amount of land and without careful management can destroy habitats. Public perception is a significant factor in planning permission and if land is identified as being suitable for a solar farm this will need careful handling.

The amount of sunlight will impact solar panel efficiency and where sunlight is limited due to excess shade or heavy cloud cover, this affects the amount of energy produced.

Forestry

The Board's Glebe portfolio contains a number of woodlands and tenants will continue to be encouraged to manage these sustainably.

The Board has engaged specialist consultants to advise on the potential for forestry development and where opportunities present themselves for suitable investment these will be pursued.

Proximity of HS2 the Board will continue to investigate the potential for forestry development in the development corridor.

September 2022