



9. Carbon Net Zero 2030 – Diocese of Bristol – The First 2 Years: Capacity, Outreach, Advocacy & Action in 2023 & 2024

INTRODUCTION

1. Our investment in Carbon Net Zero 2030 is a key element of our Transforming Church. Together (TCT) vision ('Creation Restored') and is a robust response to our declaration of a climate emergency in 2019, and public commitment to achieving net-zero carbon emissions by 2030. Our plan seeks to live out the fifth mark of mission: "To strive to safeguard the integrity of creation and sustain and renew the life of the earth" (Church of England, 2017).
2. The climate crisis is the context in which the Diocese at large proclaims the Good News. A recent survey revealed that 9 out of 10 Christian teenagers surveyed are concerned about climate change, but just one in 10 believe their church is doing enough to respond to the climate crisis (Tearfund, 2021). For our Diocese, the challenge is to reduce our net carbon emissions from an estimated 4,115 tCO₂ p.a. to 0 tCO₂ pa by 2030. The achievement of this goal will require significant investment, leadership, education, knowledge and resource sharing, influence, and a very clear trajectory for all parts of our Diocese.
3. Whilst the declaration of a climate emergency in November 2019 underpinned our ambition to achieve CNZ2030, there has been limited investment in physical changes to date, primarily due to resource constraints. In addition,
 - a. There is limited property or energy data available to enable us to create an accurate baseline. To date energy audits and decarbonisation plans have been completed on only a handful of Churches and no clergy homes or halls.
 - b. We have no reliable mapping of land or tenancy data available for Church Land or Glebe to enable the feasibility review of renewable energy creation and land management in line with Carbon Net Zero and biodiversity ambitions.
 - c. While some parishes and schools are pressing ahead, there remains significant cultural resistance to change; this needs to be recognised, and the necessary leadership, encouragement and support provided.
 - d. Some parishes have minimal financial or practical support.
 - e. The DAC have limited resource available to provide tailored individual advice to listed churches in their journey to CNZ2030.
 - f. Over 80% of carbon emissions are generated by high emitters (e.g. Schools) who are parts of the Diocese *that are not under the direct control of the DBF*

- g. We need resource to create a multifaceted Net Zero stakeholder engagement and communication plan.

This document seeks Diocesan Synod approval of expenditure of reserves on Net Zero, which was agreed in principle in 2022, has been agreed by the Diocesan Board of Finance, and is recommended to Synod by Bishop's Council.

PROGRAMME DESIGN

4. Our program will has been developed in line with the CofE's Net Zero Carbon Planning Principles:
 - a. Based in theology: Treasuring God's creation (BIT)
 - b. Urgent, relevant and widely understood (URU)
 - c. Data-driven, focused and transparent (DDT)
 - d. Embedded in all we do (EIA)
 - e. Using less energy, and from cleaner sources (ULC)
 - f. Travelling sustainably (TS)
 - g. Offsetting only what we cannot reduce (OFF)
5. Our plan reflects our reality on the ground, in our contexts, and is still at an early stage of development. It is very dependent on our ability to collate the required data, produce a detailed route map and draw in the necessary resources to make it a reality. Therefore, the early years will see:
 - a. capacity building in the DSS and parishes
 - b. the collection of accurate information on our properties
 - c. pilot schemes in the first year, whilst component prices stabilise, and technology improves
 - d. focus on the installation of photovoltaic solutions (PV) to our VA schools as our biggest emitters (DBE Greening Fund)
 - e. funding to provide energy audits to all other properties
 - f. grants to churches to start them on their journey.

The program represents a considerable logistical, financial, technological and emotional challenge, and only with all the component parts of the Diocese actively working together, can we hope to deliver it.

INTERVENTIONS

6. Early Energy Audits are essential to our data gathering exercise and subsequent planning. The provision of grants to Churches, together with a 'resource hub', and outreach support, will then enable them to begin their journey feeling more supported, to generate local plans and, thereby, have a greater chance of success.
7. The next two years will include the following interventions:
 - a. Audits and decarbonisation plans commissioned for all clergy housing (including tenanted property), churches and halls (schools have now been completed), to be funded by DBF. (DDT/URU).
 - b. A phased approach to Clergy Housing decarbonisation, heating changes and PV; taking up opportunities when vacancies occur. (ULC).
 - c. Energy audits will be used to develop decarbonisation plans - in coordination with the relevant stakeholders for Churches and Halls - and the data interpreted by the DSS Environment team to update the route map, planning and budgets. (BIT,DDT,EIA).

- d. Once a decarbonisation plan is in place for a Church, the DBF will offer a grant to cover elements of decarbonisation in their plan, This will be applicable to all areas except heating and PV, up to a maximum of £10,000 per Church. (DDT/ULC).
- e. Photovoltaic Installation for all VA schools in 2023 (our largest Carbon emitters), funded from DBE Greening Fund. (ULC).
- f. Planned expenditure on diocesan property to be aligned with CNZ2030. (EIA/ULC).
- g. No gas appliances to be installed in clergy property from 2023. (EIA/ULC).
- h. Create a decarbonisation plan for Hillside House and follow through with permissible upgrades, approaching the landlord where responsibility is outside of our control. (ULC).
- i. Seek external funding options to support the acceleration of green technologies. (ULC).
- j. Review procurement options for bulk purchasing, multi element and leasing schemes to share research with wider Diocese. (DDT, ULC).
- k. Review options for creating renewable energy e.g. solar, wind farm. (OFF).

LEADERSHIP AND GOVERNANCE

- 8. Funding for the provision of 2 new roles is essential to our setting up for success:
 - a. **Environment & Sustainability Manager** (35hrs) to collate, review, plan, construct and implement the programme and projects, in addition to provision of training and communication plans and delivery.
 - b. **Environment & Sustainability Outreach Officer** (21hrs) to provide much needed tailored 1-1 outreach support, resources and signposting of grant funding options to the whole Diocese to help guide and support them in their implementation of carbon reduction measures in line with the national church objectives.

- 9. We will also need visible Environmental Leadership, Advocacy, and good governance:
 - a. A long term, Environment & Sustainability Working Group will be established. Focus for 2023-29 is CNZ2030, 2030+ focus is Environment and sustainable practices. (BIT/URU/EIA)
 - b. We will implement reviews of Glebe portfolio and look at Glebe and Church land options for and not limited to renewable energy, sustainable practice resource and biodiversity feasibility. (ULC, OFF).
 - c. We will embed environmental principles within our organisational policies including travel and behaviours, and environmental advocacy into new job descriptions and annual objective setting. (EIA/TS)
 - d. We will ensure all DBF controlled energy accounts are sourced from renewable energy of an ethical source and make available the information to wider Diocese. (OFF)
 - e. We will appoint Diocesan Support Staff 'Green Champions' for the workplace (EIA/ULC)
 - f. A report will be provided to Bishop's Council and Synod, annually, for assurance.
 - g. A quarterly update will be provided to Bishop's Staff, then Bishop's Council.
 - h. The program is embedded in the organisational Risk Map which is reviewed quarterly. (DDT)

10. We will work hard to reduce cultural resistance and the risk of being overwhelmed, and close any gaps in understanding the scale of the challenge ahead. This will be through:
- a. Outreach 1-1 support for our communities to have a dedicated guide to assist them in arranging an audit to agreeing their route map to decarbonisation, to navigating works and faculty restrictions, to procurement and initiatives, knowledge sharing and celebrating successes. (URU,DDT)
 - b. Creation of an online resource hub, and to ensure all resources are as accessible as possible. (URU,EIA)
 - c. Inclusion of a regular Environmental/CNZ2030 element to staff meetings to share 'good news', initiatives or updates to keep the topic in mind and encourage contribution (EIA/ URU/ BIT)
 - d. Creation of a set of comprehensive educational and theological communications campaigns - with ministerial support - designed for sharing ideas, enthusing, challenging and changing mindsets and encouraging creative thought in varying audiences. (BIT/URU/EIA)
 - e. Arranging combined theological sessions and practical workshops/ training events sited in buildings with a need for change/ already changed, to encourage 'walk arounds' and sharing of insight, creativity and practical solutions (EIA/ BIT/URU)
 - f. Sharing good news stories at via the resource hub, staff meetings, deanery meetings and online (EIA)
 - g. Recruit volunteers within our communities to become Green Champions, enabling a wider reach and much needed additional resource for communication and engagement activities (EIA)
 - h. Climate Briefing sessions and resources with Theological and practical content to be made available for clergy information and sharing with others (Parish schools etc) (BIT/EIA/URU)

THE BROAD PLAN

11. The first year will be focussed on building capacity. We will gather the data we need and conduct procurement options appraisals, so we can build a sustainable and informed programme. Our plan sees the introduction of the two new roles and the return of a previous part-time role in the Summer. As outlined above, these roles will provide a competent and dedicated resource base for all areas of the Diocese. Having a dedicated manager and communications outreach capability will ensure that we can successfully encompass both a robust theological perspective and the practical elements of gathering data, and providing the technical support needed to overcome this sizeable and increasingly pressing challenge. We have chosen to create permanent roles both due to the length of the CNZ delivery and that following 2030 there will still be many other challenges ahead in energy management, potential mass energy production, behaviours, waste, procurement, reporting and monitoring.

2023-24 ESTABLISHING OUR BASELINE AND BUILDING CAPACITY

12. The first 2 years are detailed in this document only and are the focus of our request for release of DBF reserves to enable us to build our capacity, undertake information gathering and commence the pilot deliveries. The following years will be reviewed again as we are better informed and able to implement, learn, and adjust.
13. We will finalise a communications plan in June 2023 to help us launch an early roll out of the DBF-funded offer of a paid energy audit for all Clergy Housing,

Churches, and Halls. This is a twofold investment for the Diocese; firstly, enabling our newly placed team to create an in-depth plan of the sites, their current arrangements, carbon reduction options and costs (with payback terms) enabling them to more accurately programme and forecast spend profiles and review procurement options for later years. The second element is that of engagement; we believe that by funding these reports and having a team in place to support parishes to interpret the information and assist their planning, we can build crucial relationships with our wider Diocese and in particular those parishes that may not come forward to ask for help. We also plan to set our Churches and Clergy Housing occupants on the journey by providing funding towards their decarbonisation works (with the exception of heating and photovoltaics). The clergy housing decarbonisation elements will be funded by DBF, and the Churches will have up to £10,000 of works as per their decarbonisation plan made available to set them off on their journey. It was decided to take this route due to the changes in cost and technologies currently but also that we need to do some pilot schemes and procurement exercises on PV and heating to understand where we can present affordable and practical solutions. It is envisaged that the audits will be completed in 2023 (our schools have already been completed).

14. The decarbonisation works to clergy property will be split over 3 years with the bulk in 2023 and 2024. Pilot schemes will allow for 6 heating systems and 4 PV arrays to clergy property to allow us to understand the process and benchmark some costs. The decarbonisation of Churches will be over the full 7 years with a set amount made available each year for delivery. Should there be underutilised funds, properties will be brought forward. There are a number of parishes reviewing affordable and suitable heating options, including a trial of an infra-red system in one of our churches, which looks set to become very popular in providing a solution to listed and non-listed churches of varying fabric. We have not set aside funds for halls at this stage, and the programme envisages 6 Church and 4 Hall heating changes which will be funded by the Parishes themselves. Additionally, we have shown an estimate of 10 Churches and 2 halls which will install PV, that will again be funded by the Parish and is in line with established enquiries.
15. The 5 VA schools are hoping to benefit from the 'DBE Greening fund' set aside for green building works as we will look to utilise some of this to install PV to all suitable schools in 2023. As our biggest emitters, we are keen to reduce their energy costs early. It is an added challenge that all have recently installed new heating plants, so any heating provision change is envisaged for the latter part of our programme; however, each will be reviewed as budgets allow. The Diocese of Bristol Academy Trust will independently fund the install of PV to their schools over the next year via a school's solar co-operative. The DBF have reviewed this option and as it stands currently feel that the payback periods are short enough to support the purchase, DBE approval will be sought ahead of Synod. *This is for information only; Synod are not being asked to approve the expenditure of the DBE funds.*
16. A combination of a well-planned communications and workshop schedule, the tailored audit interpretation, and funding provision to get parishes and schools started on their journey, will – we hope - enthuse and inspire everyone to engage in this programme.

Notes

- A. Figures in all tables are estimated from other's data, or quotations already received. The BCIS tender cost indices forecast has been applied as per

the Sept 22 predictions¹ to 2027. 2028 onwards is at an annual increase of 2.25% to provide an indication at this stage only. Salary figures have an estimated increase of 4% from 2024 and are based on gross salary costs (10% Pension and 13.85% NIC).

- B. Exclusions are VC Schools, DBAT and The Cathedral which are independently funded but upon which we are required to report. We await presentation of their plans to incorporate.

Table 1: Presents a 2023 extract of the anticipated delivery and spend for DBF Funding

Work Stream	Property Type	Quantity	Year	DBF
Staffing Resource	Unit	2	2023	58210
Energy audits	Clergy Housing	131	2023	58950
Energy audits	Churches	215	2023	96750
Energy audits	Halls	50	2023	22500
Small Decarbonisation Works	Clergy Housing	50	2023	200000
Small Decarbonisation Works	Churches	23	2023	230000
Small Decarbonisation Works	Halls	4	2023	
Heating System Changes	Clergy Housing	6	2023	180000
Heating System Changes	Churches	6	2023	
Heating System Changes	Halls	3	2023	
PV Array install	Clergy Housing	4	2023	50000
PV Array install	VA Schools	5	2023	
PV Array install	Churches	10	2023	
PV Array install	Halls	2	2023	

2024-25 SURGING AHEAD WITH OUR DATA DRIVEN PLAN WITH HEARTS AND MINDS ENGAGED

17. We will continue to fund our additional staff resource to support our whole Diocese on this journey. Their important contributions will not only focus on the practical application of technology but also getting out into the wider Diocese, building relations with ALL schools, Parishes, Hall users, DSS and Clergy families. Energising our stakeholders to keep the momentum, and working to preserve our world for the generations that follow. 2024 will see larger delivery of technologies, because we will have a better informed plan and costed procurement options to make it both easier and more cost effective.
18. We continue into the second year of the decarbonisation works to clergy housing and churches funded by the DBF. The DBF aims to fund a further 10 Heating systems and 25 PV arrays to clergy housing to assist in the reduction of living cost to clergy families. These will be completed via market tested procurement in 2023. It is estimated that an increased 9 Churches and 5 halls will self-fund their heating change and 20 Churches and 4 halls install photovoltaic array based on the procurement and staff resource support.

Table 2 Presents a 2024 extract of the anticipated delivery and spend for DBF Funding

¹ [BCIS Five Year Building Forecast | September 2022](#)

Work Stream	Property Type	Quantity	Year	DBF
Staffing Resource	All	2	2024	77282
Small Decarbonisation Works	Clergy Housing	60	2024	260640
Small Decarbonisation Works	VA Schools	3	2024	
Small Decarbonisation Works	Churches	29	2024	290000
Small Decarbonisation Works	Halls	6	2024	
Heating System Changes	Clergy Housing	10	2024	325800
Heating System Changes	Churches	9	2024	
Heating System Changes	Halls	5	2024	
PV Array install	Clergy Housing	25	2024	339375
PV Array install	Churches	20	2024	
PV Array install	Halls	4	2024	

OUTPUTS AND OUTCOMES

19. Our principal outcome is to minimise our impact on the planet, and to safeguard those who have borne the devastating impact of climate change already. We will establish the baselines at the beginning of the program and review progress against these regularly. Our outputs include:
- a. Improved understanding our diverse portfolio and the way we use our spaces
 - b. Information collated to measure, monitor and reduce our carbon footprint
 - c. A clear and measurable understanding of our Diocesan and community contribution to climate change
 - d. Creation of Green champions
 - e. Changed behaviour and mindsets from climate denier/ avoidance to advocates for change
 - f. Enthused and educated Diocesan communities
 - g. Reduced our carbon footprint to the lowest possible before offsetting
 - h. Change ways of working to enable greener, energy efficient and sustainable working practices
 - i. Support for our wider Diocese in their carbon reduction journey
 - j. Supported Clergy with reduced utility cost liability
 - k. Supported Parishes with reduced utility cost liability
 - l. Supported Schools (ALL) with reduced utility cost liability
 - m. Income generation from school PV to assist school sustainability
 - n. Supporting biodiversity in Church land and Glebe
 - o. Revised travel behaviours, reducing unnecessary journeys and carbon emissions

**CAPACITY BUILDING AND START UP COSTS - The DBF Budget allocation
required in 2023 & 2024**

20. To deliver the first **two years** capacity, outreach and delivery, we require a total of **£2,189,507** for the above DBF elements of the programme.

This breaks down as follows:

a. Capacity Building, Data, and motivation	Year 1	Year 2
<ul style="list-style-type: none"> • Gross Salary costs for Environment & Sustainability Manager (35hrs) and Environment and Sustainability Outreach Officer (21hrs) 	£58,210	£77,282
<ul style="list-style-type: none"> • Energy Audits to all clergy housing, Churches & halls 	£178,200	
b. Getting Started and setting up for success		
<ul style="list-style-type: none"> • Small decarbonisation works Clergy Housing 	£200,000	£260,640
<ul style="list-style-type: none"> • Small decarbonisation works Churches (10,000 contribution) 	£230,000	£290,000
c. Renewable Technology Installations		
<ul style="list-style-type: none"> • Renewable Heating Clergy Housing 	£180,000	£325,800
<ul style="list-style-type: none"> • Photovoltaics for Clergy Housing 	£50,000	£339,375

21. The proposed DBF contribution (from reserves) of £2,189,507 in the first 2 years will deliver training and programming, audits, data gathering and support the pilot decarbonisation plans for Churches Halls and Clergy housing. The longer term costs to get us to CNZ2030 are subject to further work - once we have the data - but are envisaged to be in the order of an additional £7939k. Synod will be consulted annually on the necessary expenditure as part of the usual budget approval process.

22. A significant bid has been submitted to the National Church for Net Zero funding support, the success of which will determine to what extent we need to further draw on reserves in the years ahead.

GOVERNANCE

23. This program is fully incorporated into the wider diocesan communications organisation, and our scorecard and risk monitoring processes.

RECOMMENDATION:

Diocesan Synod are asked to approve expenditure of £2,189 507 of reserves on Net Zero over the next 2 years, as agreed in principle in 2022. This sum has been agreed by the Diocesan Board of Finance and is commended to Synod by Bishop's Council.