



DIOCESE OF BRISTOL CARBON EMISSIONS REPORT

Reported Years: 2021 -2024, with updated commentary to 2026

Executive Summary

This report presents carbon emissions for the Diocese of Bristol across the calendar years 2021 to 2024, with updated commentary and progress insights through 2026. As with carbon reporting across the Church of England, emissions data lags; this report therefore presents the most recent nationally validated data available, covering emissions to the end of 2024.

In 2024, total diocesan emissions were 4,445 tonnes of CO₂e. This represents a decrease of 12.5% in 2024 compared with 2023, achieved despite slightly cooler average UK temperatures (9.97 °C in 2023 down to 9.78 °C in 2024), which may have increased heating demand across the diocesan building portfolio. Overall emissions are now 29.8% lower than the 2021 baseline, demonstrating sustained progress towards the Diocese's 2030 net zero ambition.

The reduction is likely attributable to a combination of factors, including in main to the closure of the Diocese of Bristol Academy Trust (DBAT) removing 12 schools from the reporting boundary, as well as increased deployment of solar PV, building fabric improvements, and heat pump installations within clergy housing. Further contributions have come from the Diocesan £10,000 parish grant scheme supporting church and hall decarbonisation projects.

The £2 million investment allocated by Diocesan Synod in March 2023, to support the transition to net zero was fully committed to high-impact projects across the Diocese by November 2025. This programme of work has delivered tangible outcomes, including:

- The development of decarbonisation plans for 92% of churches
- Financial support for 56 churches to install decarbonisation measures
- Installation of 80 solar PV systems on clergy housing
- Installation of 17 heat pumps in clergy housing
- Delivery of 35 fabric improvement projects to clergy housing



The Diocese is on track towards its 2030 target; however, future emissions reductions are expected to become progressively more challenging. Continued focus, investment, fundraising and engagement will therefore be essential to sustain momentum and deliver further reductions in the coming years.

Introduction

The Diocese of Bristol has a long-standing and public commitment to addressing the climate emergency and reducing its environmental impact. In 2019, the Diocese became the first Diocese, in the Church of England to declare a climate emergency, setting an early and clear direction of travel and helping to inform the Church's wider response to climate change. Since then, the Diocese has continued to share learning and practical experience, supporting other dioceses as they develop and deliver their own approaches to reaching net zero.

This report presents carbon emissions data for the 2021–2024 period and forms part of the Diocese's ongoing work to understand, track, and reduce emissions across its activities and estate. It brings together emissions associated with churches, schools, clergy housing, diocesan offices, and business travel, in line with the Church of England's Net Zero framework.

The following Methodology section sets out how emissions have been calculated, the data sources included, and the limitations inherent in the datasets currently available, ensuring transparency and consistency in how reported emissions should be interpreted.

Methodology

The emissions categories included in this report align with those defined within the Church of England's Net Zero target. These comprise emissions associated with:

- Electricity, gas, oil, LPG, and other heating fuels used in church buildings
- Electricity, gas, oil, LPG, and other heating fuels used in school buildings
- Electricity, gas, oil, LPG, and other heating fuels used in clergy homes owned or managed by the Diocese
- Diocesan Services Secretariat (DSS) office buildings and business travel



- School business travel
- Well-to-tank emissions, along with electricity transmission and distribution losses associated with consumed energy

Emissions have been calculated using the Department for Energy Security and Net Zero (DESNZ) greenhouse gas conversion factors. A location-based method has been applied consistently across churches, schools, clergy housing, the DSS office, and business travel.

The 2024 Energy Footprint Tool (EFT) data were released by the National Church in March 2026, setting the earliest point at which consolidated 2024 emissions analysis could be completed. Work is ongoing at a national level to reduce reporting delays and improve data availability, with the aim of enabling reporting that is more closely aligned with the year of activity in future cycles.

The timing of project completion also affects reported emissions. Where low-carbon heating systems or solar installations are completed later in a calendar year, only a proportion of the associated carbon savings is captured in that year's data. The full impact of these interventions is therefore more clearly reflected in subsequent reporting periods.

Energy data for residential properties has been drawn from Energy Performance Certificates (EPCs), which provide standardised estimates of energy consumption and associated emissions for lighting, heating, and hot water. EPCs do not capture all sources of energy use, such as plug loads, and rely on modelled assumptions rather than actual consumption data. In addition, EPCs are valid for up to ten years and use an outdated methodology, which limits their accuracy and responsiveness to changes over time.

For schools, Display Energy Certificates (DECs) have been used where available. DECs provide insight into actual energy use over a 12-month period and include data on annual energy consumption by fuel type, main heating fuel, and total floor area. While DECs offer a more representative picture of real energy performance, the data may not always correspond exactly to the reporting year. Efforts are underway to obtain the physical utility bills for the schools in scope.

Office emissions were calculated using the bills provided by the landlord, well-to-tank emissions, along with electricity transmission calculations were incorporated.

Travel emissions data for 2024 is incomplete and has therefore required a number of assumptions and estimations. A new travel and expenses system



(ACCESS) was introduced across the Diocese in late 2024, meaning that complete and consistent travel data was not available for 2024. As a result, it has been assumed that travel activity in 2024 was broadly comparable to 2025, and the full 2025 dataset has been used as a proxy for 2024 travel emissions. In addition, clergy travel was not included within the Energy Footprint Tool (EFT) for 2024, limiting comparability with previous years for this segment. School business travel emissions for 2024 have been estimated using National Church datasets and average values derived from a limited sample size. These assumptions introduce additional uncertainty into the 2024 travel emissions figures and should be considered when interpreting year-on-year trends.

Emissions data for 2021 represents the first consolidated baseline year for reporting and was developed at a time when data availability and reporting consistency across the Diocese were very limited. As a result, the 2021 footprint relied on a higher proportion of assumptions and proxy estimates. This means that emissions reported for 2021 are likely to be overstated, and comparisons with subsequent years should be interpreted with appropriate caution.

As data quality, coverage, and consistency have improved in later reporting years, supported by increased completion of the EFT and enhanced data collection processes, it may become appropriate to re-baseline the 2021 emissions dataset to ensure a more robust and representative reference point.

Improving the accuracy, consistency, and timeliness of energy data across all building types remains a key priority for the Diocese. Progress is already being made, with the EFT completion rate reaching 97% in 2024, up from 84% in 2023. The Diocese will continue working closely with the National Church to strengthen data quality and ensure a robust foundation for measuring progress and delivering further carbon reductions.

Results

The following table shows the tonnes of CO₂ equivalent emitted during the calendar year across the different building types.

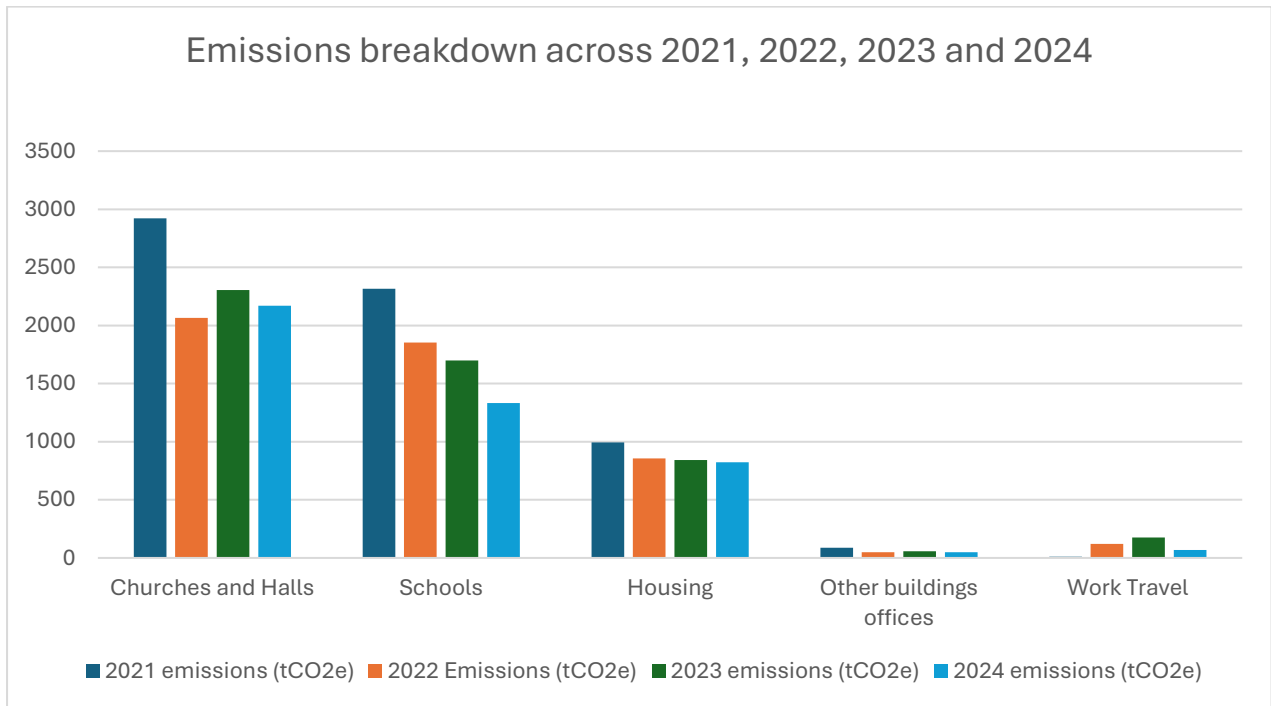
Breakdown of emissions

Building type	2021 emissions (tCO ₂ e)	2022 Emissions (tCO ₂ e)	2023 emissions (tCO ₂ e)	2024 emissions (tCO ₂ e)
Churches and Halls	2922	2064	2305	2171
Schools	2317	1854	1700	1332



Housing	993	855	842	824
Other buildings offices	89	49	56	50
Work Travel	10	122	175	68
Total emissions	6331	4944	5078	4445

¹ The carbon values included within this report use estimated (proxy) values where actual data was not available. These have been estimated using various methods based on actual collected data for each footprint type.



Overview of emissions trends

Total emissions across the Diocese reduced by 12.5% in 2024, when compared with 2023.

The data suggests there has been significant progress to date and outlines variability that can be expected at this stage of a long-term reporting journey. Across all major sources; churches and halls, schools, and housing - emissions in 2024 are lower than in 2021, providing an early indication of overall downward movement. Schools show the most pronounced reduction so far, while emissions from clergy housing decline steadily year on year. Emissions from churches and halls fluctuate over the period, reflecting external factors such as weather and changes in church and hall occupancy rates.

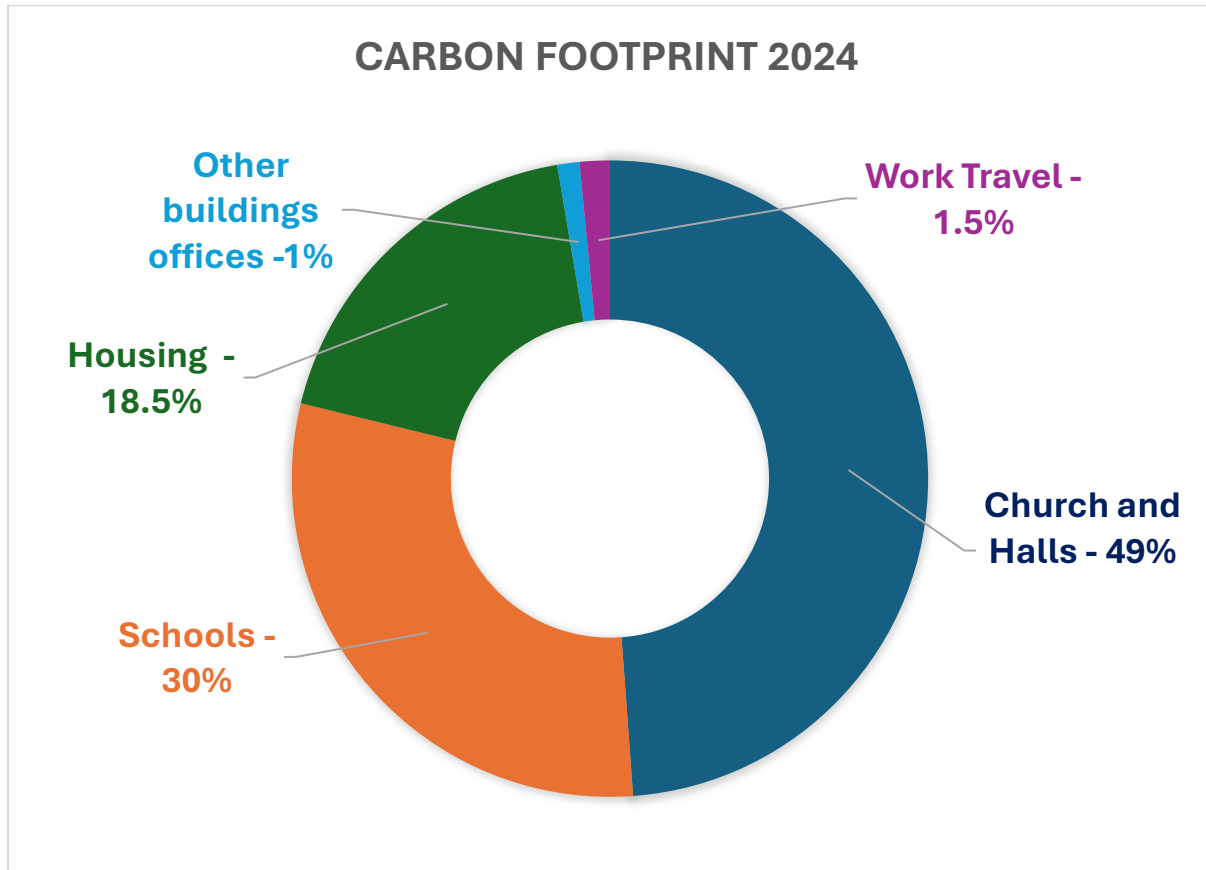
Work-related travel shows greater year-to-year variation. As outlined in the Methodology, travel data for 2024 includes a higher level of estimation, and



trends in this category will become clearer as consistent datasets are established and additional years of reporting are added.

As outlined in the Methodology section, earlier years especially 2021, include a higher degree of estimated data and should be interpreted with some caution.

2024 Carbon footprint breakdown

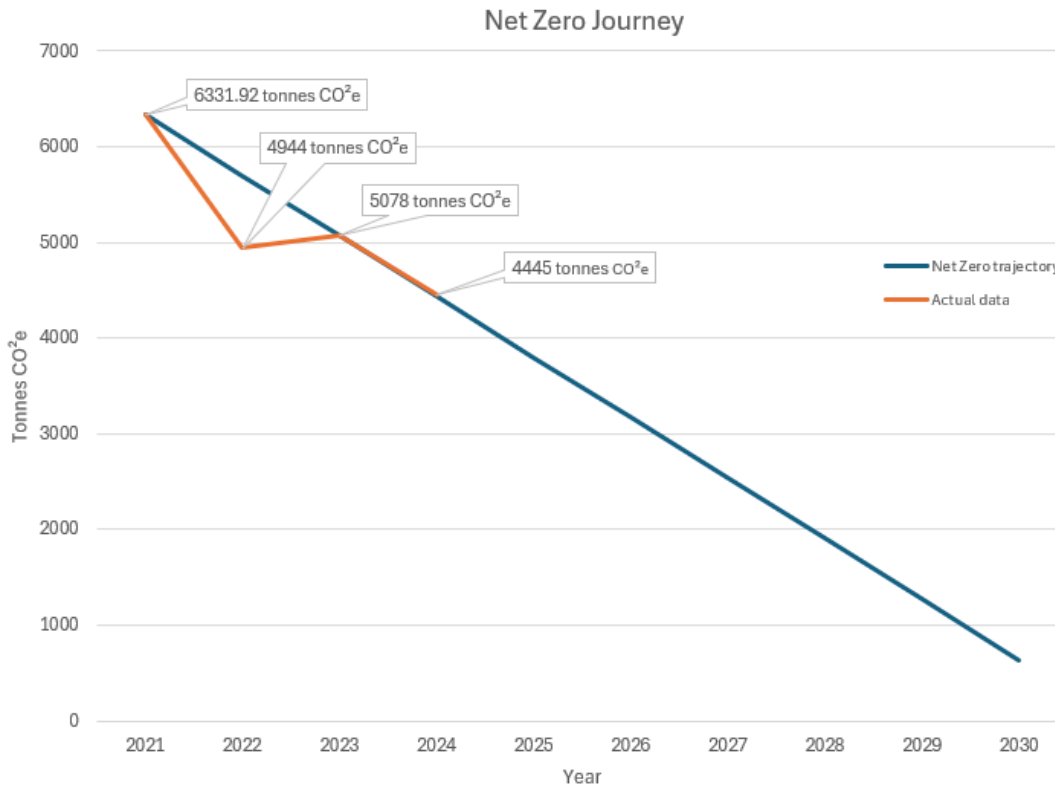


The pie chart shows that emissions remain concentrated within the built estate. Churches and halls are the largest source of emissions, accounting for around 49% of the total footprint. Schools make up approximately 30% of total emissions, followed by clergy housing at around 18.5%.

Emissions from other buildings and offices and work-related travel are comparatively small, together representing less than 3% of the Diocese's total emissions in 2024. While these categories contribute only a small share of the overall footprint, they remain important areas for reduction.



Net Zero Journey to date



The Net Zero Journey graph provides an indicative trajectory towards net zero by 2030. Overall, the Diocese’s emissions broadly follow the downward pathway required to meet the 2030 target, despite some year-to-year variation. Emissions in 2024 sit on the indicative trajectory.

The graph also highlights the pace of reduction required in the remaining years to 2030. While progress to date is encouraging, continued delivery, focus on the highest-emitting parts of the estate, and improved data quality will remain essential to sustain momentum and achieve further reductions.

Conclusion

This report shows that the Diocese of Bristol has continued to reduce its carbon emissions since 2021, with emissions reported for 2024 lower than in previous years and broadly moving in the direction required to meet the Diocese’s 2030 net zero commitment. The data provides reassuring evidence that recent investment and delivery activity are beginning to have a measurable impact.

The results also underline that carbon reporting is inherently lagged, meaning the full benefits of projects completed in recent years will only become clearer over



time. The figures presented should therefore be viewed as part of a longer-term picture, rather than a definitive measure of progress at a single point in time.

The Diocese's net zero commitment is framed as operational net zero in order to focus on the emissions it can currently measure, influence, and reduce directly through its buildings, energy use, and day-to-day activities. Achieving this will require a reduction of around 90% of operational emissions. At present, not all Scope 3 emissions are fully measured or included within the reporting boundary.

As the Diocese approaches 2030 and residual operational emissions become increasingly difficult to eliminate, it is likely that high-quality carbon offsetting will be required to address a remaining balance. A land management plan is being developed with Savills to identify land that could be suitable for environmental projects.

The pause in dedicated Net Zero funding during 2026 changes the immediate delivery context but does not undo progress already made. Bridging this gap will require increased reliance on local fundraising, external grants, and partnerships, with collaboration across parishes, donors, and external organisations playing an important role in sustaining momentum.

The Diocese continues to take a pragmatic, policy-based approach to reducing emissions. Through the Diocese Advisory Committee (DAC), new gas boiler installations are not permitted in Churches and Halls within DAC jurisdiction, this has and will continue to ensure that heating replacements align with long-term net zero goals. In many cases, electric heating systems are demonstrating benefits beyond emissions reduction, including a reduction in running costs. **26% of parish buildings** use electricity as their primary source of heating, and there will be a stronger focus on encouraging parishes to switch to green electricity tariffs in the coming years, so that the benefits of electrification are fully realised. Sharing clear, positive examples of these measures working in practice will be important in building confidence and supporting wider uptake.

Maintaining momentum will depend on continued practical action, improved data, and renewed investment over time as the Diocese works towards its 2030 target.