Annex A - Corporate net zero target report

Olivia McGregor, Climate change lead, July 2025



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1. Executive summary

In 2019 the Council declared a climate emergency and committed to make its own operations net zero as soon as possible, aiming for an 80% reduction against a 1990 baseline by 2030, and a 100% reduction by 2045. The scope of this report relates to this commitment. The council has also worked to tackle climate change beyond that, by enabling wider decarbonisation across the district (by for example encouraging the uptake of solar on buildings, installing electric vehicle infrastructure and setting net zero standards for new development). This report gives an assessment of the Council's performance against the 2030 target and makes recommendations for where the Council should focus efforts in order to meet the 2030 target.

The report reveals that to date emissions have reduced 41% against the 1990 baseline year, from $4,700,000 \text{ kg CO}_2\text{e}$ in 1990 to $2,763,803 \text{ kg CO}_2\text{e}$ in FY22-23¹. This gives an average annual emission reduction rate of 1.28%. Action to date can be seen to have led to tangible results.

The report reveals that to meet the 80% reduction by 2030 target, emissions are required to fall 66% against FY22-23 levels and reach 940,000 kgCO₂e by 2030. That requires an average annual emission reduction rate of 11%.

The report reveals the council is therefore operating with a performance gap, and needs to move from the current 1.28% annual emission reduction rate to an 11% annual emissions reduction rate if it is to meet the 2030 target.

Meeting the 2030 target will be challenging, however this report sets out the rationale for the actions which will give the Council the best chance of meeting it.

The report recommends the Council sets up a Climate Board to provide accountability for an emission reduction programme and balance work on the 2030 target with wider decarbonisation work it undertakes, to ensure the benefits from climate action are maximised. It recommends a Climate Board is also created to ensure climate action can be assessed and considered within the full context the Council operates in. It will mean that affordability and deliverability can be factored into the process.

The report sets out that subject to considering wider issues such as Affordability, Deliverability etc. as outlined in Section 5, the Council should focus on the following actions to close the target performance gap:

- Decarbonising the waste fleet (which makes up 43% of emissions)
- Decarbonising council owned buildings (which makes up 36% of emissions)
- Reducing non-waste-fleet vehicle emissions (which makes up 8% of emissions)
- Improving data quality and emission reporting capabilities
- Avoiding emission increases

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¹ Details of the baseline year calculations are available in the Climate Emergency Strategy 2020 - 2030

Finally the report recommends a programme of climate action takes account of broader changes in local government (e.g. local government reorganisation).

2. Performance against net zero target

To date emissions have reduced 41% against the 1990 baseline year, from an estimated 4,700,000 kg CO₂e in 1990 to a confirmed 2,763,803 kg CO₂e in FY22-23² (Figure 1). Emissions data was first collected in FY2009-10 therefore the 1990 baseline figure was estimated. Please note the first 20 years on the graph has been compressed therefore to reflect the absence of emissions data. Further information on why a 1990 baseline was chosen and how the baseline was estimated is available in the Climate strategy 2020-2030. Emissions between FY2009-10 and FY2022-23 reduced 33%. Action to date can be seen to have led to tangible results.

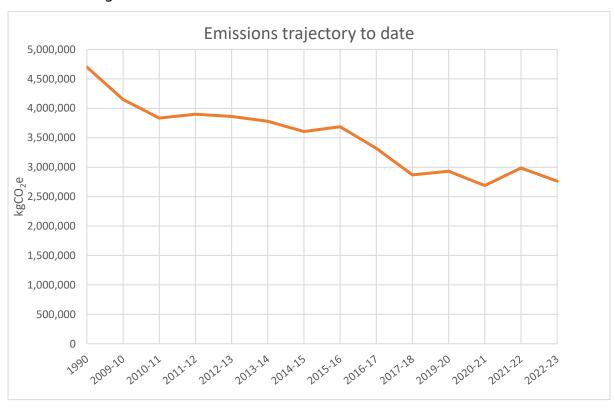


Figure 1 emissions trajectory to date (FY22-23)

The Council has committed to make the Council's own activities net zero as soon as possible, aiming for an 80% reduction against a 1990 baseline by 2030, and a 100% reduction by 2045. To meet the 80% reduction by 2030 target, emissions are required to fall to 940,000 kgCO $_2$ e. That means emissions need to reduce a further 66% against FY22-23 levels. That equates to an 11% year on year reduction to achieve the 2030 target (assuming FY24-25 data broadly resembles FY22-23 data).

The annual emission reduction rate between the 1990 baseline year and the most recent year we have data for (FY22-23) is 1.28%. The council is therefore operating with a performance gap on the basis an 11% annual emissions reduction rate is needed to meet the 2030 target. An illustrative linear trajectory from FY24-25 to FY30-31 can demonstrate the scale of the

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² Details of the baseline year calculations are available in the Climate Emergency Strategy 2020 - 2030

challenge. In reality, the emissions trajectory won't be linear. For example, it is unlikely waste fleet emissions which make up 43% of the total emissions would reduce in a linear fashion. The timings of fleet replacement will depend on the capital replacement programme schedule, EV infrastructure available to support EV vehicles and other considerations that won't necessarily materialise in a linear fashion.

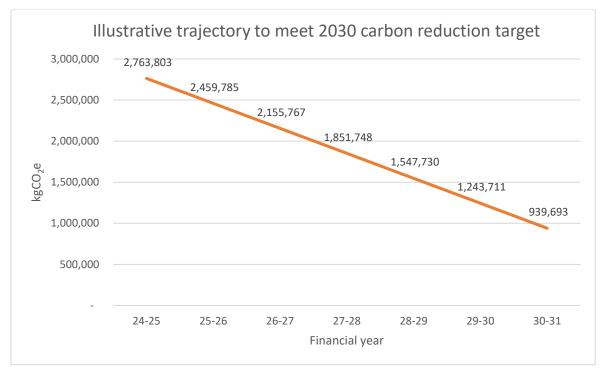


Figure 2 trajectory required to meet 2030 carbon reduction target.

3. Emissions performance since the climate strategy was published

This section sets out a review of emissions performance since the climate strategy was published in 2020 and the Council put resources in place to progress net zero ambitions. FY22-23 emissions are the most recent emissions dataset the council has to work with due to supplier issues. Between FY19-20 and FY22-23, emissions decreased 6%. Further decarbonisation work has been undertaken since then which is not reflected in these figures. This includes solar PV arrays mounted on to the three buildings that

Decreases in natural gas, electricity, water and business travel emissions outweighed emission increases associated with fuel and well to tank (WTT)³ emissions.

Table 1 provides a full breakdown of emission changes by source over this time period.

				%
				change
				between
				19/20
		kgCO₂e	kgCO₂e	and
		2019/20	2022/23	22/23
Scope 1				
	Natural gas	229,976	205,310	-11%
	Fuel	1,036,984	1,191,445	15%
Scope 2				
	Purchased electricity (generation)	182,177	115,097	-37%
Scope 3				
	WTT Natural gas	29,909	34,979	17%
	WTT Fuel	246,823	284,982	15%
	Business travel	91,371	29,015	-68%
	Electricity T&D	15,467	10,529	-32%
	WTT electricity	25,409	27,527	8%
	WTT electricity T&D	2,160	2,518	17%
	Natural gas in buildings managed by an external			
	contractor	428,465	250,641	-42%
	Electricity in buildings managed by an external			
	contractor	406,377	394,833	-3%
	Water consumption in buildings managed by an			
	external contractor	19,522	226	-99%

³ Well to tank emissions refer to the greenhouse gas emissions arising from the extraction, processing, transportation and distribution of the fuel to the point of use

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	Water consumption in buildings fully owned and controlled by Cotswold District Council	8,025	7,674	-4%
	Fuel used by external contractors	209,027	209,027	0%
Total		2,931,692	2,763,803	-6%

Table 1 - emissions changes between FY19-20 and FY22-23 by source

Decreases in natural gas emissions can be attributed to extensive retrofit work undertaken on several buildings, including leisure centres. The retrofit work, valued at £1.3 million, included the replacement of fossil fuel heating systems with hybrid air source heat pumps in both leisure centres, and the Museum Resource Centre. Additionally, energy systems at the leisure centres were upgraded to improve energy efficiency.

Decreases in electricity emissions (relating to both generation as well as transmission and distribution (T&D)) are mainly the result of the grid decarbonising by 32%. Several solar arrays were installed in 2022 so emissions in future years should illustrate the benefits of these. Lighting at Moreton Area Centre Office has also been made more efficient, which will have contributed to the observed 37% emissions reduction.

A data quality review of both business travel and water from buildings managed by an external contractor is needed, since the observed large emission decreases cannot be explained. These emissions collectively make up <2% of the total and therefore are unlikely to have a material impact on the Council's overall emissions profile. The changes in business travel emissions could be the result of covid travel restrictions and wider societal shifts to online working, supported by the Council's introduction of an Agile Working Policy but further investigations are needed to confirm this.

Fuel emissions have increased overall by 15%. The reasons behind this need to be fully investigated however an increase in the number of properties needing to be serviced, increased tonnage of recycling collected, and a new dedicated food waste service (which has environmental and carbon benefits outside the scope of this carbon footprint) may be contributing factors.

Well to tank (WTT) emissions related to natural gas and electricity are higher in FY22-23 as a result of UK gas containing a higher share of imported LNG (which has a higher WTT emission factor than conventionally sourced natural gas).

Fuel used by external contractors has been recorded for the first time in FY22-23 Carbon footprinting convention dictates that in this situation, the data is applied to FY19-20 carbon footprint, to illustrate the scope of the carbon footprint has expanded otherwise it would appear the carbon footprint had increased.

4. Emission sources

Cotswold District Council published its emissions report for FY22-23 in December 2024⁴. This represents the most recent data available as staff shortages mean FY23-24 emissions are yet to be published. A summary page of the FY22-23 emissions report is overleaf. It demonstrates where emissions come from, what they total and shows:

- Waste fleet fuel consumption is by far the largest source of emissions making up 43% of the total.
- The second largest source of emissions comes from Council operated buildings and buildings managed by an external contractor (leisure centres and museum) which collectively make up 36% of total emissions.
- Remaining emissions arise from fuel consumption in vehicles used to conduct other services (8% of total), well to tank (WTT) emissions (13% of total), emissions from business travel (1% of total) and water (<1% of total).

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⁴ https://www.cotswold.gov.uk/media/shxdvbcg/cotswold-district-council-annual-carbon-emissions-report.pdf

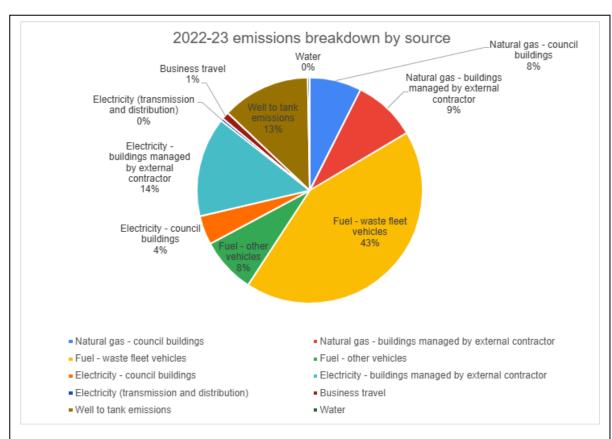


Figure 3 FY22-23 emissions by source.

		kgCO₂e
		2022/23
Scope 1	Natural gas	205,310
•	Fuel	1,191,445
Scope 2	Purchased electricity (generation)	115,097
Scope 3	Well to tank (WTT) Natural gas	34,979
	WTT Fuel	284,982
	Business travel	29,015
	WTT Business travel	-
	Electricity Transmission and distribution	10,529
	(T&D)	
	WTT electricity	27,527
	WTT electricity T&D	2,518
	Natural gas in buildings managed by an	250,641
	external contractor	
	Electricity in buildings managed by an	394,833
	external contractor	
	Water consumption in buildings managed by	226
	an external contractor	
	Water consumption in buildings fully owned	7,674
	and controlled by Cotswold District Council	
	Fuel used by external contractors	209,027
Total		2,763,803

Table 2 – breakdown of FY22-23 emissions by source

5. Recommended action gage 10 of 15

1. Create a Climate Change Board

It is recommended a Corporate Climate Change Board is set up to provide accountability for an emission reduction programme and support the Council with its objective of achieving its 2030 target and help guide future expenditure decisions. The Climate Board can enable the co-benefits from taking climate action (e.g. health improvements, economic improvements) to be maximised and ensure climate action can be assessed and considered within the full context the Council operates in. It will mean that affordability and deliverability can be factored into the process.

When assessing the proposed actions, the Climate Board will enable the Council to consider factors namely:

- **Affordability** does the Council have the revenue and/or capital resources available to support the actions? What impact does each action have on the Council's revenue budget?
- **Deliverability** can the actions be delivered within the timescale available to the Council given the impact of Local Government Reorganisation? This is not to suggest that actions should not be taken but a consideration of whether the Council (and its successor) are able to support the actions as identified.
- **Investment and Payback** Where actions require forward investment, do the climate and financial benefits justify the investment, do they flow in accordance within the required timeframe?
- Governance one of the considerations around deliverability is to determine whether decisions should be taken solely by Cotswold District Council, or in partnership with other stakeholders such as the County Council due to Local Government Reorganisation. The Government published a Devolution Whitepaper December 2024 which announced a programme of local government reorganisation (LGR). District councils could cease to exist in their current form and all new authorities could be in place by the end of this government term (2029). The programme also needs to consider tackling climate change could become a statutory duty for Local Authorities which could have an effect on the programme's focus and the resources available to.

The proposed terms of reference for this Board are set out in Appendix 1 and specify the Board's role and purpose, membership, meeting etiquette and frequency.

2. Decarbonise the waste fleet

Procuring EV waste fleet vehicles could have the most significant effect on reducing the Council's emissions. Fuel consumption in the waste fleet is by far the largest source of emissions making up 43% of CDC's total and this would reduce to zero if EV vehicles were procured. Vehicle running costs could significantly reduce too by moving to electric. However, the Council needs to explore the viability of transitioning internal combustion engine (ICE) refuse collection vehicles (RCVs) to electric since while EV technology in cars and vans has been widely adopted, the same is not the case for refuse collection vehicles (RCVs) and other large vehicles. The substantial costs of building necessary charging infrastructure and securing grid capacity need to be considered as does the Local Government

Reorganisation and regulatory context. The use of alternative fuels (e.g. HVO) should be explored alongside. Given Gloucestershire Waste Collection Authorities (WCAs) already work closely together via their Resources and Waste Partnership, are all shareholders in Ubico and have set ambitious carbon reduction targets, the option to produce an EV waste fleet transition plan at a countywide scale is being investigated via the Climate Leadership Gloucestershire (CLG) forum.

3. Decarbonise council buildings

The second largest source of emissions comes from Council operated buildings and external contractor managed buildings, which collectively make up 39% of CDC's total emissions (well to tank emissions associated with natural gas and electricity consumption add 3% on top of more direct emissions which total 36%).

Significant decarbonisation of the built estate has already been undertaken: significant decreases in natural gas have been achieved because of extensive retrofit work undertaken on several buildings, including leisure centres. CDC has laid good foundations for further work in this area however the 'low hanging fruit' have already been taken so further decarbonisation may be more challenging. CDC will need to determine 1) where further building energy assessments are required 2) whether they are eligible for further grant funding and 3) the impact of local government reorganisation (LGR) on the Council's ability to decarbonise assets.

4. Reduce non-waste-fleet vehicle emissions

Emissions associated with non-waste-fleet vehicles makes up 8% of the total. These include Ubico-managed land management vehicles/machinery; vehicles used by staff to deliver Council services; and third-party vehicles delivering services on the Council's behalf (i.e. maintenance of public conveniences). To reduce emissions in this area:

- 1. vehicles used by staff to deliver council services will need to be transitioned to EV
- 2. Options to decarbonise land management vehicles/machinery will need to be explored
- 3. The Council's leverage over decarbonising third-party vehicles delivering services on the Council's behalf will need to be investigated

Electric vehicles are achieving cost parity with business as usual in certain cases and can even offer financial gains which bodes well.

5. Improve data quality and emission reporting capabilities

To date it has been possible to calculate emissions up to FY22-23. This means that some of the more recent decarbonisation work undertaken by the Council isn't reflected in this report's 2030 target progress assessment. It is recommended therefore that the Council investigates how best to collect FY23-24 and FY24-25 data in the immediate term so a more up to date picture can be formed. Beyond that, it is recommended performance against the 2030 goal is monitored annually so that the effect of decarbonisation efforts can be continuously measured. This will enable the Council to assess its decarbonisation strategy.

Emission reductions associated with business travel and water exhibited more than a 50% change between FY19-20 and FY22-23 and so it is recommended a data quality review is undertaken of these emission sources specifically (collectively making up <2% of the total) to ensure the Council demonstrates continues improvement here and can fully rely on the data being reported.

It is recommended options for streamlining the data collection process are investigated too since data collection processes have historically been incredibly time intensive.

Finally, it is recommended a data quality review is undertaken to ensure the Council's carbon emission reporting remains compliant with The GHG Protocol aka the *Greenhouse Gas Protocol for a Corporate Accounting and Reporting Standard*^{1.} It requires emission reporting to be 1.Relevant 2.Complete 3.Consistent 4.Transparent and 5.Accurate.

6. Avoid emission increases

Producing additional emissions will only increase the scale of the net zero challenge therefore it is recommended that plans for changes to assets and service delivery are assessed to understand the impact on carbon emissions, and remedial action is taken where an increase in emissions is previewed. The delivery mechanism for conducting this assessment needs to be considered.

6. Appendices

7. Appendix 1 – Corporate Climate Change Board Terms of Reference

Context

Cotswold District Council declared a climate emergency in 2019 and committed to make their own activities net-zero as soon as possible, aiming for an 80% reduction by 2030 and a 100% reduction by 2045, against a 1990 baseline. To meet the 80% reduction by 2030 target, emissions are required to reduce a further 66% against FY22-23 levels (the most recent data we have available). It has been estimated that requires an 11% year on year reduction between now and 2030. Efforts to date have led to emissions reducing on average 1.28% annually since the baseline year therefore taking action commensurate with the net zero target requires a step change going forwards.

Role and Purpose

- 1. Its function is to provide accountability for an emission reduction programme.
- 2. Monitor progress and hold officers and partners to account in terms of delivery of key climate projects and programmes.
- 3. Help identify solutions to project delivery problems and 'pathways' to those solutions, be that to external funding opportunities, a request to Cabinet for additional resources, (subject to business cases and the usual criteria for assessment) or opportunities to utilise Climate Leadership Gloucestershire further to support the Council's projects and programmes.
- 4. Provide a collective voice and present visible leadership on climate action for Cotswold District Council.

Support

The Climate Lead will prepare a quarterly progress update using a Red Amber Green (RAG) traffic light system, for review by the Climate Change Board, highlighting those areas for focused review to support delivery.

Membership

The membership comprises of:

- Council Leader
- Cabinet Member for Climate Change and Digital
- Chief Executive
- Deputy Chief Executive/S151 Officer
- Director of Communities and Place
- Climate Change Lead

In addition, Portfolio holders and Service leads will be invited to board meetings when their service area will be covered. Subject matter experts (e.g. fleet, property) will be invited on an ad-hoc basis.

Meeting procedure

The Board will be chaired by the Cabinet Member for Climate and the CEO will function as vice chair.

For a meeting to take place, the CEO or Cabinet Member for Climate (or their nominated sub) must be present plus one other from the membership.

The Climate Lead will prepare an agenda in agreement with the Chair.

Meeting etiquette

To attend and contribute to meetings and, if unable to do so, to send a nominated deputy. To work effectively together to drive forward work on corporate net zero.

The first meeting will be in person with subsequent meetings to be a combination of in-person or hybrid as agreed at the first Board meeting.

Meeting frequency

Meetings to occur quarterly. It is proposed the first board meeting takes place in September 2025 with subsequent meetings in December, March and June of each year.

8. Appendix 2 - Net zero definition

Net zero refers to reducing an organisation's greenhouse gas emissions as close to zero as possible and using removal technologies (of a natural or industrial nature, for example peatland restoration) to remove residual emissions so that the net emissions balance is zero.