

Suffolk County Council
Corporate Carbon Footprint 2022-3
Public Statement

Context

In March 2019, the Council declared a Climate Emergency and its ambition to achieve net zero carbon emissions for its own operations by 2030, and to work with partners toward the aspiration of Suffolk achieving carbon neutrality by 2030.

An annual update on progress is produced. This paper is a summary of the key information included in that report.

The full report presented to Scrutiny can be found in the papers for the Scrutiny meeting on 11th December 2023, [Agenda Item 4](#).

Please note that we continually seek to expand the range, and improve the accuracy of our monitoring processes. The figures in this report were based on the best data available at the time, but may not match the figures used in later reports, if more accurate or complete data has become available in the meantime.

Classifying emissions

Emission releasing activities are classified into three 'scopes' which are defined in the internationally accepted GHG Protocol and are described in the table below. Scope 3 emissions are more difficult to account for, because the required data often lies with the supply chain in other organisations. As a result, there is a higher degree of estimation in the Scope 3 category.

Scope	Definition
1: Direct Emissions (Energy)	Emissions that occur directly from sites or assets owned by the organisation. e.g. gas boilers; fleet vehicles
2: Indirect Emissions (Energy)	Emissions that occur elsewhere from energy purchased for use in the organisation's sites or assets e.g. electricity, heat or steam
3: Indirect Emissions (Other)	All Indirect emissions that occur within the value chain as a result of the organisation's activity, but are not directly owned by the organisation. e.g. employee commuting, purchased goods & services, waste disposal

Figure 1 Definitions of the Scopes used within the footprint

Standard conversion factors have been used to assess the carbon footprint of each activity and building. The conversion factors are published by DEFRA on an annual basis and reflect the carbon intensity of a range of carbon sources.

The footprint has been calculated following the approach set out by the GHG Protocol.

Suffolk County Council's Carbon Footprint

	2019/20	2020/21	2021/22	2022/23
Scope 1	7,126	7,194	7,286	5,553
Scope 2	9,092	7,543	6,613	5,035
Scope 3	14,948	12,910	13,744	14,066
Total	31,166	27,647	27,594	24,601

Figure 2 Measured Carbon Footprint (tonnes CO₂e).

N.B. vast majority of scope 3 not included.

What is Included

Figure 2 summarises emissions covered by this footprint which come from:

- energy refrigerant and water use across all buildings including non-academy schools
- waste produced in our five main offices
- electricity used by streetlighting the Council is responsible for
- fuel used in Council vehicles
- fuel use in planes, trains and private cars for travel on council business
- home to school transport
- fuel use by staff for commuting and working from home.

Understanding the figures

Figures for previous years have changed as we have sourced better data. This includes the ability to monitor new areas of emissions, including travel by plane and train on council business, and more granular understanding of areas already reported in.

The emissions reported within the footprint relate to around 5% of the Council's expenditure (revenue and capital) and probably around 10% of the total emissions associated with its operations. The figures reported include most of the Council's scope 1 and 2 emissions but only a very small proportion of the 'scope 3' emissions associated with products and services purchased.

The drop in 20/21 is largely due to the pandemic.

The figure for 22/23 shows a reduction of 2,990 tCO₂e relative to 21/22, representing 10% of the baseline figure. The main factors behind this are reduced energy consumption in streetlighting resulting from the upgrade programme; and reduced gas consumption at corporate property and schools. Lower carbon impacts from grid decarbonisation explain about 27% of the reductions achieved since 19/20.

Current forecast for 2030

Figure 3 below forecasts progress towards net zero for the emissions in figure 2. It shows the **annual budget cap** (grey bars) necessary to achieve net zero for these emissions by 2030 with a linear year on year reduction, and the **forecast outturn** given projects in place (green/ orange lines).

In 2022 the Council moved to a 100% renewable energy supplier in line with the PDP recommendation. The supply of renewable electricity is supported by Renewable Energy Guarantees of Origin (REGO), which are administered by Ofgem and provide transparency about the source of renewable electricity generation. Fig. 3 shows the decarbonising impact of the Council moving to a renewable electricity supply (green line), but also shows the emissions associated with the grid average carbon intensity for electricity used (orange line). The renewable energy tariff still draws electricity from the grid, but acts as a driver for more rapid grid decarbonisation.

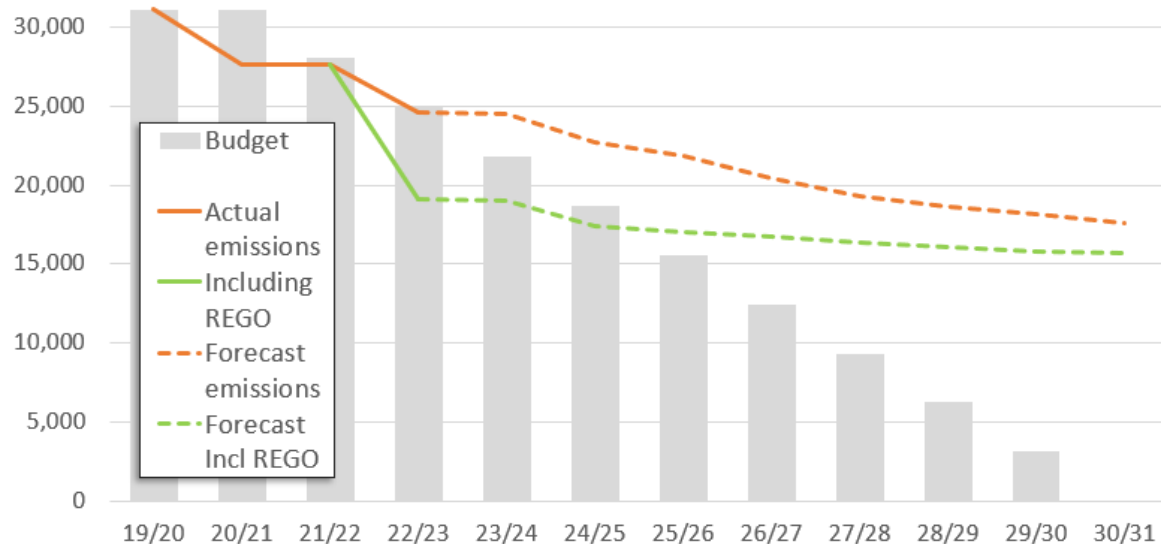


Figure 3: Net Zero Budget and Forecast Pathway

Overall, this shows a reduction of 21% on the 19/20 baseline.

The forecast position only takes account of savings where we have a clear and funded plan for achieving them. This includes

- property upgrades according to the plan approved by Cabinet in November 2021
- remaining impacts of street lighting upgrades
- shift of pool car fleet to electric
- decarbonisation of the grid nationally

The 2030 forecast in Figure 3 is 17,649 tCO₂e (or 15,687 tCO₂e accounting for REGOs) – i.e. 57% (or 50%) of the baseline. We expect this to be exceeded, as new projects are developed, and as our footprint benefits from a wider societal decarbonisation. It nonetheless illustrates the scale of further actions to be developed on top of those already in place, to meet the target just for the emissions within the scope of this footprint.

Scope 1 & 2 Emissions

Scope 1 and 2 covers the emissions where the Council has the most control. The largest areas within this grouping are:

Scope 1: Consumption of gas, oil, wood and refrigerants across Council owned buildings (including schools, libraries and fire stations); Consumption of fuel within pool cars and fleet vehicles, including fire.

Scope 2: Electricity use across Council owned buildings (including schools, libraries and fire stations) and Council owned streetlighting and traffic lights.

Emissions from these two scopes have reduced by over a third since the baseline year. This largely results from efficiency improvements to streetlighting and buildings, and decarbonisation of the grid nationally.

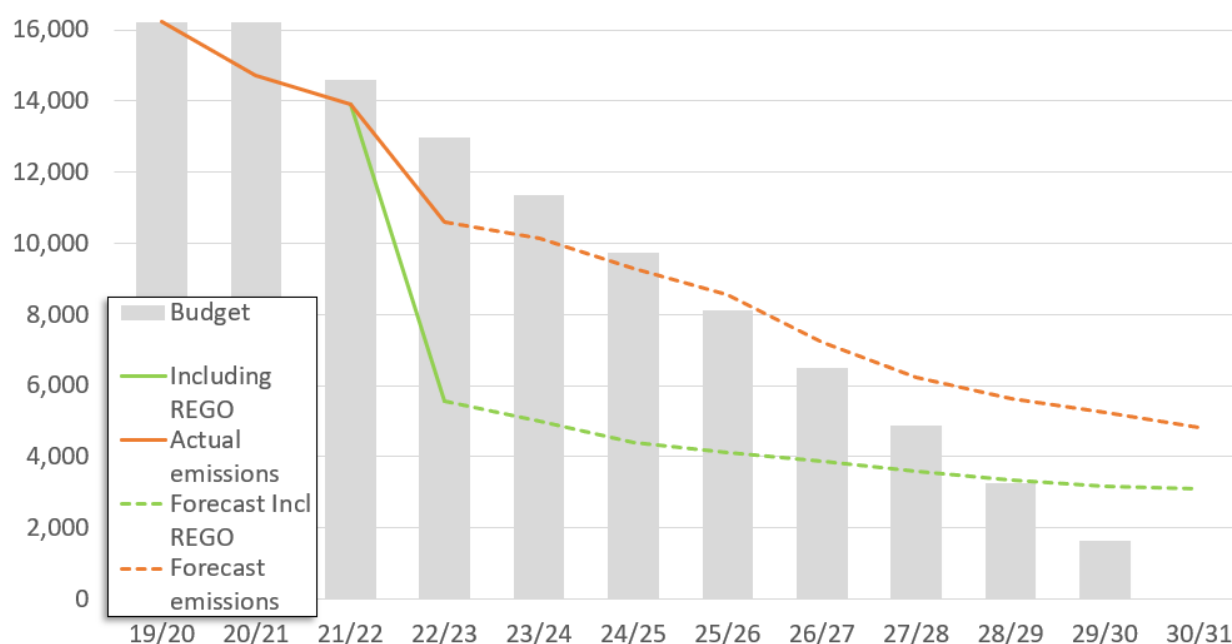


Figure 4: Scope 1 & 2 Budget and Forecast Pathway

Figure 4 shows the actual and projected emissions from Scope 1 & 2 emissions, compared to the proportional share of the 2030 budget.

Progress on Scope 1&2 over the last year

Emissions within these scopes fell by 24% over the year 21/22 – 22/23. A key factor in this is the ongoing decarbonisation of the corporate estate. A range of efficiency and renewables projects have supported a 38% reduction in gas use from the corporate estate, while achieving cost avoidance of over £800k in revenue costs over the two-year period, with continued cost avoidance to be over £500k yearly. Carbon savings from reduced consumption of gas and oil in the corporate estate account for 21% of the total Scope 1 & 2 savings over this period.

35% of the total reduction is associated with the ongoing replacement of 43,400 streetlights with more efficient LED bulbs, which has led to reductions of over 2,200 tCO₂e since 19/20.

Additional savings come from improvements across the estate, and reductions in gas use at schools (20% of the total). This is likely to be in part driven by energy prices and may be dependent on short term behavioural measures such as turning heating down. Further savings arise from the electrification of pool cars and other small vehicles within the council's fleet, though it is not yet possible to capture the full impact of these changes. 15% of the total reported savings result from decarbonisation in the national grid, which has reduced the carbon intensity of the electricity used by Suffolk County Council.

Achieving net zero on Scopes 1&2

Figure 4 shows a projection for achievable reductions across Scopes 1&2 based on current policies and commitments.

This projection shows a pathway to achieving a 61% reduction by 2030 (79% including REGO). Higher rates of reduction should be achievable, as a result of behavioural change and new opportunities identified between now and 2030. Nonetheless, it indicates that at present there is not a clear path to Net Zero by 2030 for Scopes 1&2.

Ongoing challenges to achieving net zero for Scope 1 and 2 include the cost of decarbonising the full range of buildings across the Council's portfolio, finding an alternative to fossil fuels for larger vehicles including within the fire fleet, and reducing the Council's reliance on the national grid.

Scope 3 Emissions

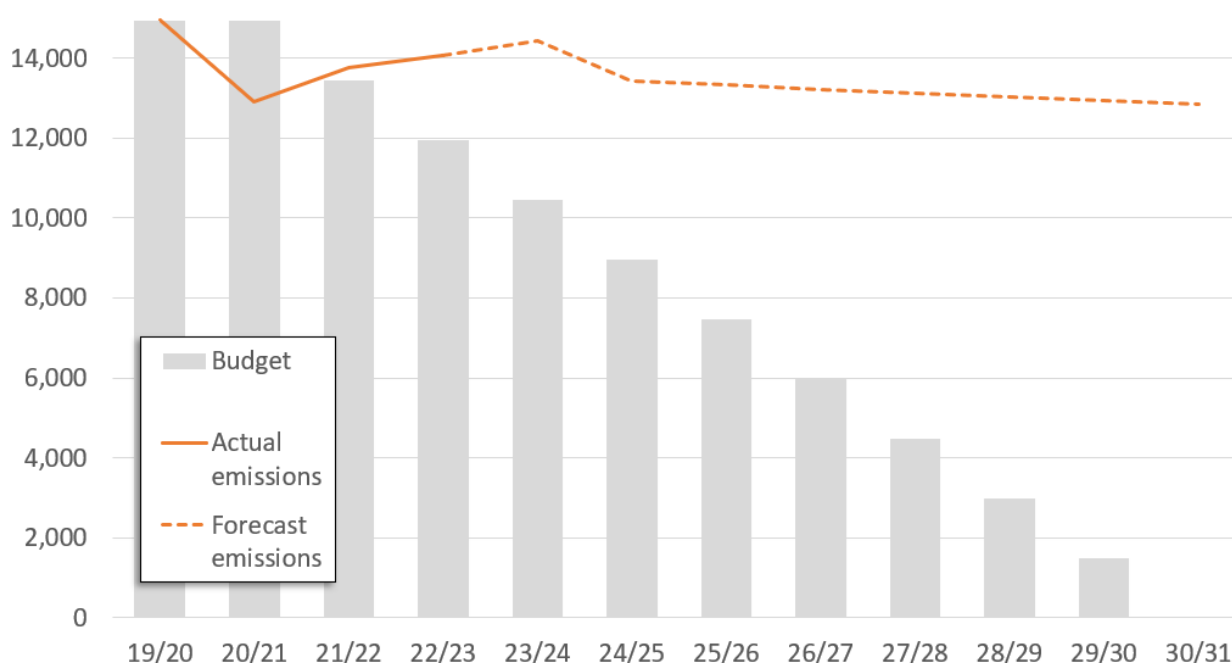


Figure 5: Scope 3 Budget and Forecast Pathway

Figure 5 shows the actual and projected emissions from Scope 3 emissions, compared to the proportional share of the 2030 budget. Scope 3 covers the emissions where the Council has less control. The largest areas within this grouping are travel in staff vehicles, commuting, home working, and home to school transport. Not reported here is the bulk of the supply chain emissions, which likely represents 91% of the total footprint, but we are unable to capture accurately.

There are not significant savings projected within the Forecast Emissions for this Scope. This does not reflect an absence of activity in this area, but the difficulty of confidently linking action to measurable reductions.

Ongoing measures including a review of school transport contracts to rationalise journey miles; a revised package of incentives to support staff to travel sustainably. Supply chain

impacts are mostly not captured within these figures, and measures are addressed separately below.

There are multiple areas within Scope 3 where it is not currently possible to describe a pathway to Net Zero. These include providing home to school transport provision; emissions from the Council's wider supply chain; and emissions employees working at home, commuting, and travelling in their own vehicles.

Encouraging Staff to engage with the Net Zero target

Staff have a significant role to play in reducing our carbon emissions. This applies across all three scopes, as behaviour can impact energy use in buildings, fleet, commuting and homeworking as well as supply chain engagement. There is also an important link between staff involvement in the Council's net zero target, and their contribution to the wider goal of decarbonising Suffolk.

The delivery structure also oversees a range of engagement measures to support delivery of the target, including internal communications, online resources and a Staff Champions network.

Training has been undertaken with contract managers on the Climate Change Commercial Ask, as well as for all staff on Climate Change Awareness. Staff Champions within the Carbon Negative Nature Positive network have received Carbon Literacy training from Groundwork, and support to spread these messages across their teams.

Identifying Emissions in the Supply Chain

The challenge of quantifying scope 3 emissions in our supply chain has already been identified as a significant issue. It must be remembered that for the Council to achieve net zero carbon for scope 3 emissions it requires our supply chain to adopt a similar commitment to deliver net zero for the goods and services they supply. Therefore, several approaches are needed to support the change required. These include:

- a) Climate Change Commercial Ask (CCCA)
- b) Carbon Charter accreditation.

A spend-based assessment has been used to estimate that the supply chain represents 91% of the Council's total footprint. Work is ongoing to provide more accurate information of how this impacts across spend categories.

Working with our Suppliers

The Climate Change Commercial Ask is an innovative framework to support suppliers and Council staff involved in procurement and commissioning services to ensure environmental considerations are given due weight throughout the process. It is a first step in preparing our commercial partners to be able to provide the information we will require to effectively measure and manage scope 3 emissions.

Work is prioritising the Top 100 and Top 1000 suppliers (respectively representing 61% and 95% of total spend). A standardised approach is being followed to support the implementation of decarbonisation plans through these groups. To date, 37 of the top 100 suppliers have adopted Net Zero targets.

There is a risk that small and medium sized businesses (SMEs) may be less able to meet the additional requirements of demonstrating compliance with the council's net zero ambition. The Carbon Charter is a council provided platform of support and guidance available to all Suffolk businesses to help them monitor their emissions and transition towards net zero. The Carbon Charter accreditation scheme provides formal recognition of a company's environmental achievements and gives them the right to use the Carbon Charter logo on their marketing materials. It gives access to a network of like-minded businesses and evidence of environmental actions when bidding for work (with the Council or other organisations).

To date 492 businesses have gained Carbon Charter accreditation, and the network continues to grow, though only a small proportion of these are within the Council's supply chain. 15 of the top 1000 suppliers have been Carbon Charter accredited. Supporting businesses to reduce energy use at this time is also critical to reducing the negative impacts of current high energy costs.

Emissions Breakdown (tonnes CO₂e)^(a)

Scope ^(b)	Category	2019/20	2020/21	2021/22	2022/23
1	Buildings - Gas	4,749	5,112	5,030	3,680
1	Buildings - Other Fuels	657	860	951	606
1	Refrigerants ^(c)	434	444	434	434
1	Council Owned Vehicles - Diesel	1,170	745	804	760
1	Council Owned Vehicles - Petrol	116	30	66	70
SCOPE 1 TOTAL		7,126	7,194	7,286	5,551
2	Buildings – Electricity	4,833	3,733	3,450	3,036
2	Street & Traffic lights	4,259	3,810	3,164	1,999
SCOPE 2 TOTAL		9,092	7,543	6,613	5,035
3	Staff business travel in own vehicles	1,284	493	1,198	1,607
3	Plane & Train Travel	52	47	45	45
3	Staff Commuting ^(d)	3,762	0	2,037	2,557
3	Home Working	0	2,834	1,120	1,108
3	Water use – whole estate	177	125	62	65
3	Waste – main offices	5	5	5	5
3	Home to School transport ^(e)	8,896	8,758	8,692	8,218
3	Electricity Transmission & Distribution ^(f)	772	649	585	461
SCOPE 3 TOTAL		14,498	12,910	13,744	14,066
Total ^(g)		25,533	19,732	21,543	14,652

Notes

- All emissions are shown in terms of tonnes of Carbon Dioxide equivalent, which allows all greenhouse gas emissions to be accounted for in a comparable manner.
- Emissions are grouped by scope, according to the Greenhouse Gas Protocol. - Scope 1: Direct Emissions - Scope 2: Indirect emissions from purchased electricity, heat or steam - Scope 3: Other Indirect emissions
- Figures for 19/20 and 22/23 are estimated where actual data is not available.
- Figures are based on travel to work survey and assumptions around homeworking patterns
- In the absence of accurate data across contracts, estimates of fuel use have been extrapolated from a more detailed estimate of one area of the county.
- Emissions associated with the transmission and distribution of electricity through the national grid.
- The scope of these emissions relates to around 5% of the Council's expenditure (revenue and capital) and is probably around 10% of the total. Most fossil fuel use and purchased electricity (scope 1 and 2 emissions) is included but only a very small proportion of the 'scope 3' emissions