

Derbyshire County Council

Greenhouse Gas Emissions Annual Report 2021-22

Introduction

This report summarises the greenhouse gas emissions produced from the estate and operations of Derbyshire County Council in the year 2021-22.

The Council is committed to reducing emissions of greenhouse gases in accordance with its corporate Environment Policy. In October 2021, Cabinet members approved the Climate Change Strategy: Achieving Net Zero (2021-25) which details how the Council will take action to reduce emissions from its own estate and operations with a target to have net zero greenhouse gas emissions by 2032, or sooner, and also how it will work across the county to reduce Derbyshire's emissions to net zero by 2050.

What does the Council measure?

Emissions are recorded as tonnes of carbon dioxide and equivalent greenhouse gases (CO₂e). Emissions from four sources are currently included in the Council emissions data:

- Property: Council-owned property and buildings
- Street and road lighting
- Grey fleet: any personal vehicle driven by a member of staff for Council business
- Core fleet: Council-owned vehicles, for example, heavy goods vehicles used for gritting roads

In March 2020 many of the Council's staff began working from home due to the Covid pandemic. Attempts have been made by the Council and other authorities to estimate the emissions resulting from working from home: powering laptops and other equipment; heating homes; extra water use and so on. Estimates have also been made of emissions savings resulting from not commuting to the office.

Due to the level of estimation, there is a considerable lack of confidence about the data and so emissions for homeworking and commuting for Derbyshire County Council are not presented here. However, based on the findings of two other county councils which have carried out detailed analyses, the emissions

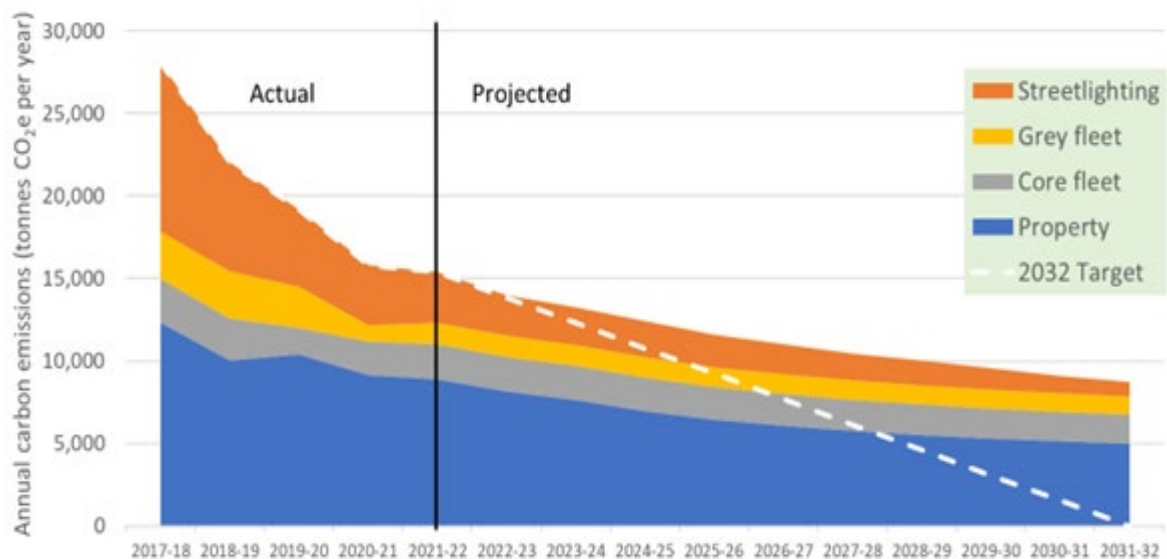
saved by not commuting significantly outweigh those resulting from working at home when taken across the workforce as a whole. Moving forwards, the Council will continue to explore methodologies for collecting homeworking and commuting emissions data

Emissions from school buildings are recorded separately to keep the data consistent. Including schools would lead to inconsistent results because the local authority school portfolio continues to change as more schools become academies.

The Council is currently working to quantify emissions from some 'hard to measure' sources such as waste, water and procurement.

Information and Analysis

Provisional figures show that greenhouse gas emissions from the Council estate and operations fell by 64.2% between 2009/10 and 2021/22 – as shown in the figure below. Emissions were reduced by 63.2% between 2009/10 and 2020/21 meaning that there has only been a further 1% reduction in the last year.



Details of greenhouse gas emissions from the Council's estate and operations for successive years are provided below:

Greenhouse Gas Emissions 2009-10 to 2018-19 (tonnes CO2e)

Year	Property (excl. schools)	Street & road lights	Core Fleet	Grey Fleet	Total (excl. schools)
2009-10	15,666	18,121	4,590	4,590	42,966
2010-11	15,989	17,918	4,413	4,331	42,652
2011-12	15,180	16,865	4,508	4,147	40,700
2012-13	17,215	17,162	4,090	3,466	41,933
2013-14	15,500	15,500	4,462	3,408	39,678
2014-15	15,642	17,325	3,746	3,281	39,994
2015-16	14,744	15,685	3,388	3,175	36,992
2016-17	12,942	13,687	3,172	3,166	32,967
2017-18	12,322	10,239	2,662	2,863	28,087
2018-19	10,023	6,617	2,564	2,861	22,066
2019-20	10,399	4,691	1,633	2,483	19,206
2020-21	9,126	3,667	2,026	989	15,807
2021-22	8,861	3,070	2,140	1,307	15,378

Analysis

- The data highlights a continuing decline in the amount of greenhouse gas emitted by Derbyshire County Council since the baseline year of 2009/10. Emissions have fallen from 42,966 tonnes of CO2e in 2009/10, to 15,378 tonnes of CO2e in 2021-22, a reduction of 64.2%.
- The majority of the Council's emissions in 2021/22 were generated from Council property 58%, followed by street lighting 20%, whilst core fleet 14%, and grey fleet 8.5%, account for the remainder of the emissions
- Although energy use is less than last year for 75% of buildings in the corporate estate portfolio, the impact of increased ventilation and building occupancy is likely to be behind the smaller than expected reduction of 3%.
- The most significant reduction in emissions occurred in street lighting with a reduction of 20,825 (83%) tonnes of CO2e since 2009-10. The emissions reduction is due to continuation of the LED replacement programme, night-dimming and part-night lighting, along with decarbonisation of the electricity grid.
- Emissions from the Council's vehicle fleet increased slightly in 2021/22. This is believed to be due to improvements in data collection methods and a return to pre-Covid working practices.
- There has been a significant increase in emissions from the grey fleet. The increase in emissions is due to the resumption of business travel following the lifting of Covid restrictions. However, this is still below the figure for 2019/20, likely due to continued use of virtual meetings.

Emissions Projections

Projected greenhouse gas emissions from the Council estate are presented below based on existing and planned projects. These will be further revised on an annual basis.

Year	Council emissions (tonnes CO ₂ e)	Emissions reduction target (against a 2009-10 baseline)
2009-10	42,966	-
2021-22	15,378	64%
2026-27	11,040	74%
2031-32	8,710	80%

The above table highlights the gap between emissions reduction targets and projections for all four sources. It indicates that there is potentially a **shortfall in the necessary emissions reduction of 8,710 tonnes CO₂e by 2031/32**. Some of these residual emissions are likely to be offset through renewable energy generation on Council-owned buildings and land, and by carbon sequestration through activities such as tree planting. However, the focus should remain on reducing emissions and so a step-change is needed if the Council is to achieve net zero emissions by 2031/32, which would require the decarbonisation of heat in buildings and the reduction and electrification of travel by car and Light Commercial Vehicles.

Conclusion

The Council has made good progress in reducing emissions from its own estate and operations and has ambitious plans to further reduce these. However, a key challenge is to reduce emissions from buildings, many of which are of considerable heritage value and are listed and can be difficult to retrofit. Moving forwards, the Council has widened the scope of its emissions reduction programme and is working to both measure and reduce emissions from sources it does not have direct control over.