

Derbyshire County Council

Greenhouse Gas Emissions Annual Report 2020-21

Introduction

This report summarises the greenhouse gas emissions produced from the estate and operations of Derbyshire County Council in the year 2020-21.

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.

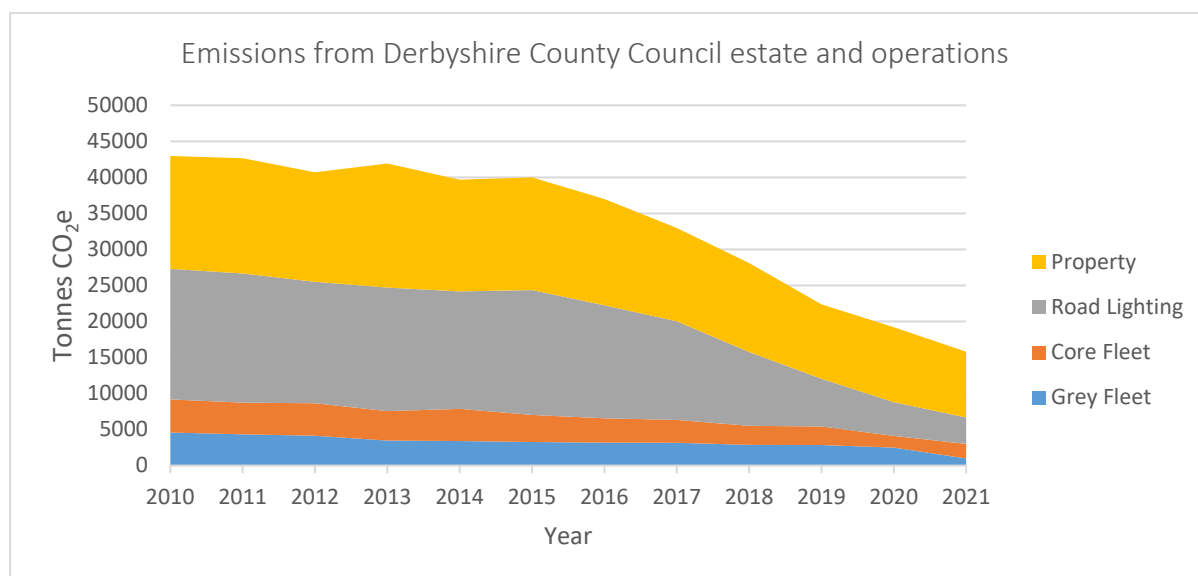
In March 2020 many of the Council's staff began working from home due to the Covid pandemic. Attempts have been made by the Council and other authorities to estimate the emissions resulting from working from home: powering laptops and other equipment; heating homes; extra water use and so on. Estimates 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.

The graph below shows the overall reduction in greenhouse gas emissions from the Council estate and operations between 2009-10 and 2020-21.



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	16,307	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

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 15,807 tonnes of CO₂e in 2020-21, a reduction of 63.2%.
- The majority of the Council's emissions in 2020-21 were generated from Council property (58%), followed by street lighting (23%), whilst core fleet (13%) and grey fleet (6%) account for the remainder of the emissions.
- The most significant reduction in emissions occurred in street lighting with a reduction of 17,755 (79.8%) tonnes of CO₂e since 2009-10. This is mainly due to the Council's continuing programme of work to install new energy-efficient LED street lighting across the county. Other approaches such as part-night lighting and night-dimming, as well as an increase in renewable energy generation in the national grid have also contributed to the reduction.
- Emissions from the Council's vehicle fleet increased slightly in 2020-21. This is believed to be due the impacts of the Covid-19 pandemic as staff were not allowed to share vehicles and there was an increase in fleet use as the Council responded to an increase in demand for existing and new services.
- Also of significance is the reduction in emissions from the grey fleet. This is due to the impact of the Covid-19 pandemic. Most meetings are held on-line and the delivery of services has been adapted during the pandemic. This has greatly reduced mileage driven by Council staff. On-line meetings will continue post-pandemic which will result in a permanent reduction in grey fleet emissions.

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 CO₂e)	Emissions reduction target (against a 2009-10 baseline)
2009-10	42,965	-
2021-22	15,324	64%
2026-27	8,056	81%
2031-32	2,760	93%

As shown in the table above, current projections suggest that by 2031-32 the Council's CO₂e emissions could be reduced to 2,760 tonnes. Other factors such as ever advancing technological solutions and changes in behaviour

could further reduce this amount. However, should this not be possible, then the utilisation of carbon sequestration (uptake and storage of carbon dioxide, notably by trees) would enable the offsetting of any remaining emissions.

Conclusion

The Council has made excellent progress in reducing emissions from its own estate and operations and has ambitious plans to further reduce these. 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.