Derbyshire County Council

Greenhouse Gas Emissions Annual Report 2018-19

Introduction

This report summarises the greenhouse gas emissions produced from the estate and operations of Derbyshire County Council.

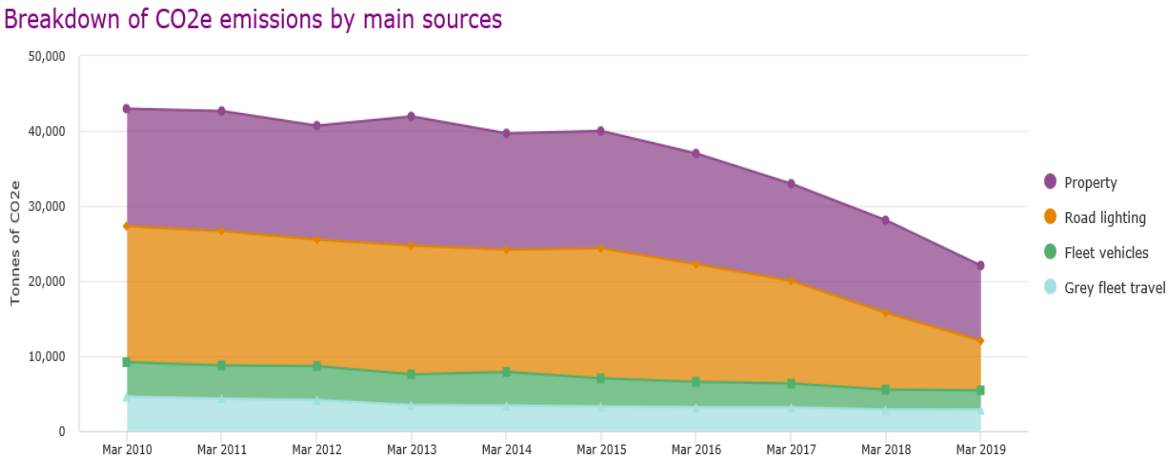
The Council is committed to reducing emissions of greenhouse gases in accordance with its corporate Environment Policy. In November 2019, Cabinet members approved a new Carbon Reduction Plan which details how we will take action to reduce emissions from our own estate and operations with a target to have net zero greenhouse gas emissions by 2032.

What do we Measure?

Emissions are recorded as tonnes of carbon dioxide and equivalent greenhouse gases (CO_2e). Emissions from four sources are currently included in the 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.

The graph below shows the overall reduction in greenhouse gas emissions from 2009-10 to 2018-19.



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

	Greenhouse Gas Emissions 2009-10 to 2018-19 (tonnes CO_2e)				
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

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

Work to reduce emissions from other sources, which we currently do not quantify, such as waste, water and procurement, continues to be undertaken.

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 CO_2e in 2009-10, to 22,066 tonnes of CO_2e in 2018-19, a reduction of 48.6%.
- The majority of the Council's emissions in 2018-19 were generated from Council property (45%), followed by street lighting (30%), whilst core fleet (12%) and grey fleets (13%) account for the remainder of the emissions.
- The most significant reduction in emissions occurred in street lighting with a reduction of 3,622 (35.4%) tonnes of CO_2e since 2018. This is mainly due to the Council's continuing programme of work to install new energy-efficient LED street lighting across the county. As of October 2019, 71,000 LED lights have been installed. 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.
- Also of significance is a 19.1% reduction of CO_2e (2,362 tonnes) emitted from Council properties since 2018. This is mainly due to the disposal of surplus and unused buildings coupled with increased UK green electricity generation.

- CO_2e emissions from the Council's core and grey fleets continue to gradually decline. This trend is expected to continue as the Council supports the introduction of low emission vehicles and associated infrastructure combined with technological and behaviour change programmes.

Emissions Projections

Derbyshire County Council has pledged to reduce its greenhouse gas emissions by 55% by March 2022 compared to the 2009-10 baseline, with the ultimate goal of becoming net zero carbon by 2032.

Year	Council emissions (tonnes CO_2e)	Emissions reduction target (against a 2009-10 baseline)
2009-10	42,965	-
2021-22	18,944	55%
2026-27	8,056	81%
2031-32	2,760	93%

As shown in the table above, current projections suggest that by 2031-32 the Councils CO_2e 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.

The Council will achieve the projected greenhouse gas emissions as follows:

- **Property**: Reduce current CO_2e emissions to 9,800 tonnes by 2021-22 and to **664** tonnes by 2031-32 through continued property rationalisation, deep retrofit, micro-generation and large scale generation of renewable energy and the purchase of renewable gas and electricity.
- **Street lighting:** Reduce current CO_2e emissions to 4,035 tonnes by 2021-22 and to **zero** by 2031-32. This will be achieved by the continuation of LED, part-night and dimming programmes concluding in March 2022. After this, further reductions will be achieved through procurement of renewable electricity.
- **Core fleet:** Reduce current CO_2e emissions to 2,595 tonnes by 2021-22 and to **1,487** tonnes by 2031-32. This will be achieved through the use of electric pool cars, smarter navigation, the electrification of vans and decarbonisation of HGV's will make this target achievable.
- **Grey fleet:** Reduce current CO_2e emission levels to 2,514 tonnes by 2021/22 and to **609** tonnes by 2031-32. This will be achieved by reducing mileage through a behaviour change programme, increased use of electric pool cars and the electrification of grey fleet vehicles as a growing number of staff make the switch to electric vehicles. By 2022-23 it is anticipated

that at least 5% of mileage year on year will switch from fossil fuelled engines to electric vehicles.

Conclusion

The challenge of global climate change and the need to reduce carbon emissions has never been so great and the Council continues to make excellent progress towards its target of a 55% reduction in greenhouse gas emissions to 18,944 tonnes of CO_2e by 2022 and to net zero carbon by 2032.