Annual Greenhouse Gas Report: 2022-23

Bedford Borough Council acknowledges the carbon dioxide (CO_2) emissions generated through the delivery of our services and the resulting contribution they make towards climate change.

Acknowledging and understanding the need to do as much possible locally to reduce the effects of climate change; the council wants to demonstrate leadership by "getting its own house in order" by reducing both the direct and indirect carbon dioxide emissions as efficiently and effectively as possible.

Adopted in March 2011, Bedford Borough Council's Carbon Management Plan set out a programme of action for the council to achieve its aspirational 40% carbon reduction target. In 2018/19 Bedford Borough Council exceeded this target on its own operated council buildings and achieved a 62% carbon reduction.

In March 2019, the council signed a Climate Emergency declaration and pledged to become carbon neutral by 2030. This resulted in a revised baseline requirement for the council, which focuses on:

a. Council Owned Buildings
b. Council Owned Transport
c. Council Staff Business Travel

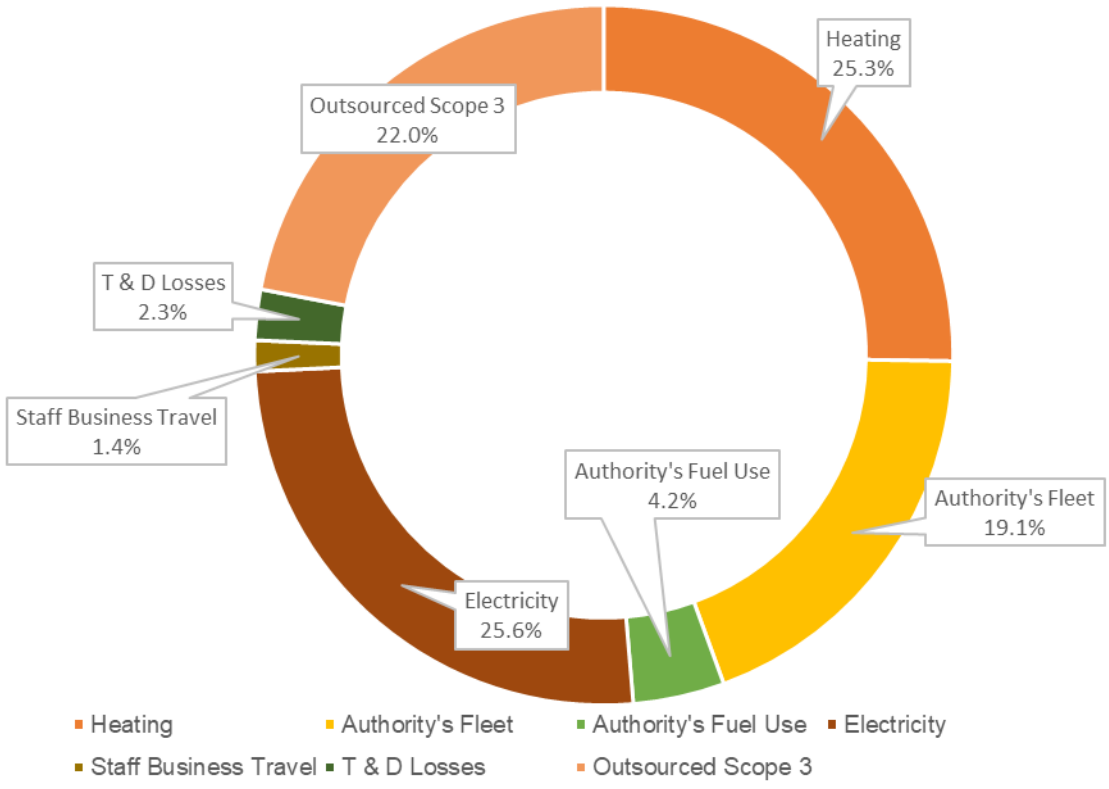
Council Controlled	2018/19 Tonnes of CO_2
Council buildings (electric and heating fuel)	4,953 tonnes
Owned Transport (fleet and social care)	2,159 tonnes
Business travel (scope 3 indirect, inc. air, rail)	164 tonnes
Total Tonnes	7,276 tonnes

This baseline was set in early 2019, it excludes schools and outsourced emissions and was based on data available at the time.

Since this baseline was set, it is proposed that an annual reconciliation of the existing data is completed to ensure any data management issues are resolved, i.e. the completeness of the baseline inventory and problems with basic data availability at the time of completion. This may impact on the emissions achievements that are presented, but it will be a far more accurate representation of the council's carbon footprint as a whole when the target year of 2030 is reached.

It is recommended that the following occurrences that affect emissions will trigger base year data recalculation i.e. acquisitions/divestitures, outsourcing/insourcing, changes in reporting boundaries or calculation methodologies. [1]

Overall Council Emissions 2022/23



The above chart shows Council buildings, Owned Transport, Business Mileage and Fusion run Leisure sites in Outsourced Scope 3.

The following report summarises the council's actual carbon emissions for 2022/23 as per the original DEFRA guidance on how to measure and monitor greenhouse gas emissions and then further in the report present the carbon emissions against the Carbon Neutral target separately.

[1] https://www.gov.uk/government/publications/guidance-on-how-to-measure-and-report-your-greenhouse-gas-emissions

DEFRA report

Scopes	Global tonnes of CO_2e				
	2018/19 Baseline	2019/20	2020/21 (revised)	2021/22 (revised)	2022/23
Scope 1	8,308	8,535	8,206	8,478	7,266
Scope 2	6,349	5,550	4,305	4,361	4,409
Scope 3	2,840	2,458	623	1,996	2,134
Out of scopes (biomass)	-			-	2.5
Total gross emissions	**17,498**	**16,543**	**13,134**	**14,835**	**13,811**
Carbon offsets	0	0	0	0	0
Green tariff	0	0	0	2,227*	0
Total net emissions	**17,498**	**16,543**	**13,134**	**14,835**	**13,811**
Intensity measurement "Tonnes of CO_2e per head of population"	0.1	0.1	0.08	0.085	0.074
Overall Percentage saving to Baseline	-	**5%**	**25%**	**15%**	**21%**

*See Green Electricity on page 8.

Operational Scope

We have measured Scope 1 and 2 emissions for all properties and vehicles the council fully own and control. The councils reported Scope 1 and 2 emissions also include emissions from those properties that are leased in from others, where the council is delivering a service, but not including buildings that are leased out or outsourced and where the council does not receive or pay the energy bills.

In line with previous NI185 reporting and the baseline within the councils Carbon Management Plan, the council has also measured significant Scope 3 emissions, which does include the outsourced buildings and business travel which is in line with Defra guidance.

	GHG emissions 2018-19 in tonnes of CO_2e Baseline	GHG emissions 2019-20 in tonnes of CO_2e	GHG emissions 2020-21 in tonnes of CO_2e (revised)	GHG emissions 2021-22 in tonnes of CO_2e (revised)	GHG emissions 2022-23 in tonnes of CO_2e
Scope 1					
Gas consumption	5,277	5,591	5,515	5,531	4,484
Heating Oil consumption	802	675	541	580	544
Owned transport	2,159	2,177	2,051	2,250	2,132
LPG	71	92	99	116	106
Total Scope 1	**8,308**	**8,535**	**8,206**	**8,478**	**7,266**
Scope 2					
Purchased electricity	6,349	5,550	4,305	4,361	4,409
Total Scope 2	**6,349**	**5,550**	**4,305**	**4,361**	**4,409**
Scope 1+2 saving to Baseline	**-**	**4%**	**15%**	**12%**	**21%**
Significant Scope 3					
Business travel	225	172	3	100	129
Outsourced activities	2,615	2,286	620	1,896	2,005
Total Significant Scope 3	**2,840**	**2,458**	**623**	**1,996**	**2,134**

Schools are included within our Scope 1 (gas and oil) and Scope 2 (electricity) emissions in the table above. The breakdown of school's emissions against non-schools' emissions is illustrated below (Scope 3 emissions and transport have been excluded):

	GHG emissions 2018-19 in tonnes of CO_2e Baseline	GHG emissions 2019-20 in tonnes of CO_2e	GHG emissions 2020-21 in tonnes of CO_2e (revised)	GHG emissions 2021-22 in tonnes of CO2e (revised)	GHG emissions 2022-23 in tonnes of CO2e	% Saving from baseline
TOTAL building emissions *Excluding Scope 3	**12,499**	**11,907**	**10,460**	**10,588**	**9,545**	-24%
Schools	7,220	6,799	5,980	5,952	4,902	-32%
All other Council buildings*	5,279	5,108	4,480	4,636	4,643	-12%

** For the purpose of the government's requirements on the calculation of the greenhouse gas report, contracted services and outsourced buildings are not required to be reported as Scopes 1 and 2 and are not calculated within the figure for 'Council buildings' in the above table.*

Council Carbon Neutral Scope

	2018/19 Tonnes CO_2 Baseline	2019/20 Tonnes CO_2	2020-21 Tonnes CO_2 (revised)	2021-22 Tonnes CO_2 (revised)	2022-23 Tonnes CO_2	Increase/Decrease in % to Baseline
Council buildings (Scope 1 and 2)	5,279	5,108	4,480	4,636	4,643	-12%
Owned Transport	2,159	2,177	2,051	2,250	2,132	-1%
Business travel (Scope 3)	225	172	3	100	129	-43%
Total Tonnes	**7,663**	**7,457**	**6,534**	**6,986**	**6,904**	**-10%**

Should any missing data become available in the future the baseline will be reviewed, and if necessary, recalculated to reflect the accurate data in the following report. More information about recalculation can be found here. The data from previous years will be reviewed year on year to ensure that any errors are corrected, and the figures are updated accordingly.

Changes in Emissions

Stationary Sources

The council's estate changes quite frequently. Despite the council closing a number of buildings as part of its modernisation programme, many sites have also been handed back to the council (e.g. care homes) and some sites continue to grow and expand (e.g. schools).

The below table is an addition in the 2022/23 report to show how the number of the supplies measured year on year changes. This shows that both acquisitions and removals of supplies can impact on the carbon emissions.

	2018/19	2022/23
Total Number of meters showing usage on GHG report – including 20 Fusion Leisure sites	510	504
Total number of Council only meters showing usage	250	265
Total number of Schools meters under Council energy contract/ where we have access to usage data	240	219

Leisure sites are managed by a third party (as of 1st February 2014) and the resulting emissions are deemed as Scope 3 as these are outsourced - the emissions are the responsibility of Fusion Lifestyle Limited and have not been included within Scopes 1 and 2 (albeit Bedford Borough Council continues to monitor consumption and emissions).

There were a number of schools that left the council's energy contract in 2022/23 due to the increase in energy prices, this is the reason the council is seeing a large reduction in school emissions, and likely to continue to see this for next year's report as well.

As a result of the pandemic throughout 2020-22, Bedford Borough Council's carbon emissions were significantly reduced due to the shift towards more home working, schools closing for short periods. As the world has opened up a bit more in 2022-23 and people have returned back to offices and schools, this has unsurprisingly caused the council's emissions to show an increase from the year before last. The council has also taken ownership of several temporary housing accommodations, with responsibility for the landlord's supply. However, the overall emissions are still on a downwards trend from the 2018/19 baseline target. With the introduction of Agile Working Policies and the increased take up in web based conferences and meeting, it is hoped that this will continue to negate the need for cross-country travel. This is shown by the councils continued low business mileage compared to the baseline year.

Throughout the year 2022/23, this has brought its own challenges through the energy crisis as energy prices rose at an unprecedented rate and to a level no one could have predicted. This left the council, schools and outsourced sites with severe budget impacts and concern over the viability of continuing to remain open for some sites. The increase in prices led to some schools deciding to leave the council's electricity and gas contracts to try to seek better prices themselves which resulted in less usage on the council's contracts for schools in this particular year. It has also impacted on sites that are leased out e.g. community centres leaving the contracts. This does not mean that these are council 'savings' on emissions, it just means that we as a council cannot influence or monitor these easily.

Successful applications to the Salix Public Sector Decarbonisation fund have allowed the council to implement more energy efficiency works across sites compared to if we were just replacing like for like equipment. Converting schools from oil fired heating to gas or even air source heat pumps, insulating and replacing windows, upgrades to lighting are ongoing and savings should be realised next year.
Solar PV installations will also be completed this year and the savings and carbon benefits from those will be shown in the following years report.

Vehicle Fleet decarbonisation

The council's depot incoming mains supply already has limited ability to support much more charging capacity, so future increase in the electrical fleet will need to be supported by major infrastructure costs (with ever-increasing metered revenue costs) or novel solutions to capture, store and use.

Passenger Transport

This year there is an increased accuracy on the passenger transport data because officers have tried to get more of an exact number of days travelled this year. Last year it was assumed that all routes travelled 190 days (as per number of school days) but in reality, some routes travel as little as 30 days.

Approach

The council has followed the Governments Guidance published by Defra on how to measure and report greenhouse gas emissions. This is available at:
https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance

The emission factors used to produce this Greenhouse report are those provided for 2022 by Defra and are available at:
https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022

The UK electricity factor is prone to fluctuate from year to year as the fuel mix consumed in UK power stations (and auto-generators) and the proportion of net imported electricity changes. These annual changes can be large as the factor depends very heavily on the relative prices of coal and natural gas as well as fluctuations in peak demand and renewables.

Transmission and distribution losses (T&D)

This year the council has also accounted for the transmission and distribution (T&D) losses of the electricity purchased, which occur between the power station and our sites. The emissions from T&D are accounted for in Scope 3.

Organisational Boundary

The council has used the Financial Control approach as recommended within the Defra guidance. Further detail on which operations or activities have been included within our organisational boundary for the purposes of compiling this report is provided under 'Operational Scope' below.

Company Information

Bedford Borough Council is a unitary authority in Bedfordshire.
Registered address: Bedford Borough Council, Borough Hall, Cauldwell Street, Bedford, MK42 9AP

Reporting Period

1st April 2022 to 31st March 2023

Geographic Breakdown

All the councils' operations and activities are conducted in the UK.

Base Year

The council's base year is 1st April 2018 to 31st March 2019.

Targets

The council has declared a Climate Emergency and within that has pledged to become Carbon Neutral by 2030. This target includes Council Owned Buildings, Council Owned Transport and Business Mileage.

Intensity Measurement

Bedford Borough Council exists to deliver services for the people of Bedford Borough and therefore we have used an intensity measurement of "tonnes of CO_2e per head of population" based on mid-year population statistics.

2022/23 - mid-year 2022 population estimate (taken from WasteDataFlow) is 185,761.

External Assurance Statement

The council has not received an independent external assurance over our reported emissions.

Carbon Offsets

The council has not purchased any carbon offsets.

Green Electricity

The council has not purchased 100% Green Electricity on its own corporate estate this year (2022/23) due to the huge increase in electricity costs which led to a huge financial burden on all council properties. The tariff will be reviewed next year for April 2024.

Green electricity purchased through the grid should use the grid emission factors as these factors consider the efficiencies made in the national infrastructure (e.g. from electricity produced from green sources). Annex G (page 114 of the pdf) of Defra's 'Environmental reporting guidelines' contains further information on how to account for renewable electricity that you have generated and exported to the national grid/third party.

Recalculation Policy for Baseline emissions

For consistent tracking of performance over time, the council may need to recalculate the base year so that accurate comparison of the current emissions and historic emissions can occur. This baseline recalculation policy explains the basis and context for any recalculations.

Recalculation of our base year emissions may occur in the following cases:

- Structural changes that have a significant impact on the council's base year emissions, such as the transfer of ownership or control of emission–releasing activities or operations from the council to another. While a single structural change might not have a significant impact on the base year emissions, the cumulative effect of a number of minor structural changes can result in a significant impact. Structural changes include: – Mergers, acquisitions, and divestments – Outsourcing and insourcing of emitting activities

- Changes in calculation methods or improvements in the accuracy of emission factors or activity data that result in a significant impact on the base year emissions data
- Discovery of significant errors, or a number of cumulative errors, which are collectively significant.

The Council will not recalculate baseline emissions in the following cases:

- Economic growth or decline – refers to changes in production output, and closures and openings of operating units owned or controlled by our organisation
- Outsourcing or insourcing of emitting activities – Structural changes due to “outsourcing” or “insourcing” do not trigger base year emissions recalculation if our organisation is reporting its other indirect (Scope 3) emissions from relevant outsourced or insourced activities. Only where the emitting activities move outside the scope of our reported GHGs, or emitting activities move within the scope of our reported GHGs, will we include them.
- Operations acquired or sold that did not exist in the base year – we will not recalculate our base year where the council acquires (or insource) and divest (or outsource) operations that did not exist in our base year and where data is unavailable for that year.