



Annual Greenhouse Gas Report 2023-24

Contents

Introduction.....	2
Overall Council Emissions 2023-24	3
DEFRA Report	4
Operational Scope.....	5
Council Carbon Neutral Scope	6
Changes in Emissions	7
Stationary Sources	7
Vehicle Fleet Decarbonisation	8
Passenger Transport	8
Approach	8
Update for 2023 Electric (Scope 2) emissions	8
Transmission and distribution losses (T&D)	9
Organisational Boundary	9
Company Information	9
Reporting Period	9
Geographic Breakdown	9
Base Year	9
Targets	9
Intensity Measurement	10
External Assurance Statement	10
Green Electricity	10
Recalculation Policy for Baseline emissions	10

Introduction

Bedford Borough Council acknowledges the carbon dioxide (CO₂) 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

Table 1. Baseline emissions 2018/19 in Tonnes of CO₂

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, including 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.

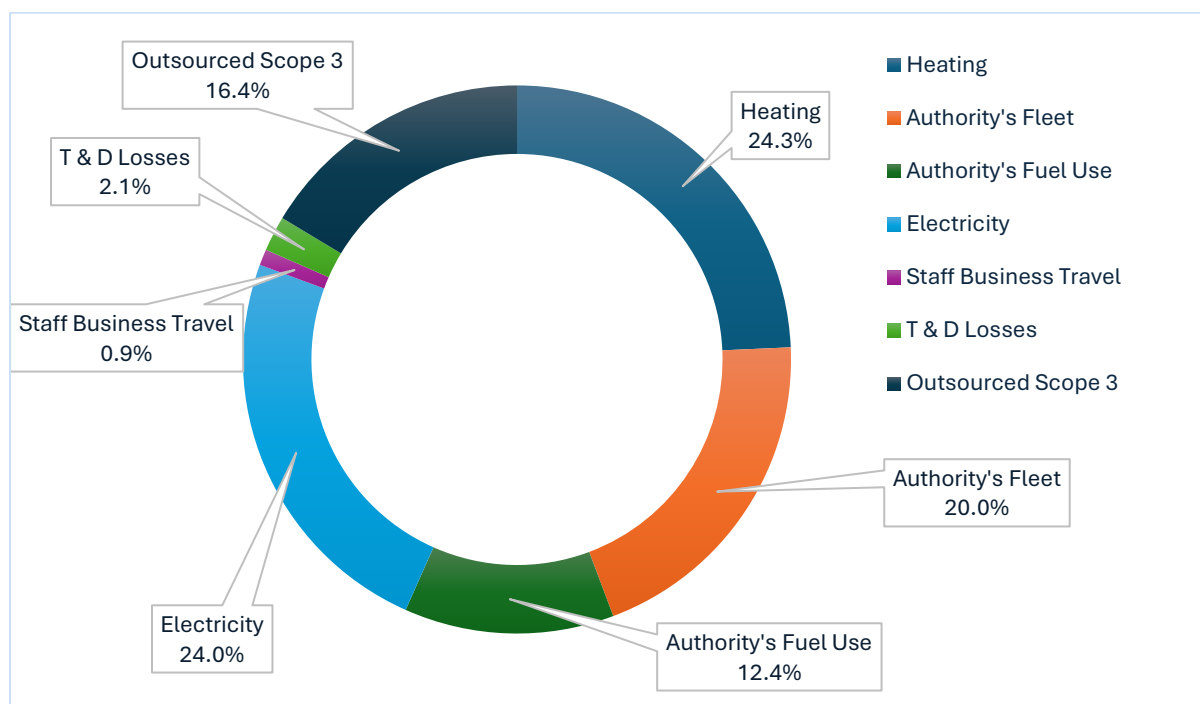
Since this baseline was set, it is proposed that an annual reconciliation of the existing data is completed to ensure any data management issues are resolved, i.e. the completeness of the baseline inventory and problems with basic data availability at the time of completion. This may impact on the emissions 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

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

Overall Council Emissions 2023-24

The below 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 2023-24 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.

DEFRA Report

Scopes	Global tonnes of CO ₂ e					
	2018-19 Baseline	2019-20	2020-21 (Revised)	2021-22 (Revised)	2022-23	2023-24
Scope 1	8,308	8,535	8,206	8,478	7,266	6,388
Scope 2	6,349	5,550	4,305	4,361	4,409	3,459
Scope 3	2,840	2,458	623	1,996	2,134	1,601
Out of scopes (biomass)	-			-	2.5	-
Total gross emissions	17,498	16,543	13,134	14,835	13,811	11,448
Carbon offsets	0				0	-
Green tariff	0				0	-
Total net emissions	17,498	16,543	13,134	14,835	13,811	11,448
Intensity measurement “Tonnes of CO ₂ e per head of population”	0.1	0.1	0.08	0.085	0.074	0.061
Overall Percentage saving to Baseline	-	5%	25%	15%	21%	35%

*See Green Electricity on page 10.

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 ₂ e Baseline	GHG emissions 2019-20 in tonnes of CO ₂ e	GHG emissions 2020-21 in tonnes of CO ₂ e (revised)	GHG emissions 2021-22 in tonnes of CO ₂ e (revised)	GHG emissions 2022-23 in tonnes of CO ₂ e	GHG emissions 2023-24 in tonnes of CO ₂ e
Scope 1						
Gas consumption	5,277	5,591	5,515	5,531	4,484	4,173
Heating Oil consumption	802	675	541	580	544	121
Owned transport	2,159	2,177	2,051	2,250	2,132	2,076
LPG	71	92	99	116	106	19
Total Scope 1	8,308	8,535	8,206	8,478	7,266	6,388
Scope 2						
Purchased electricity	6,349	5,550	4,305	4,361	4,409	3,459
Total Scope 2	6,349	5,550	4,305	4,361	4,409	3,459
Scope 1+2 saving to Baseline	-	4%	15%	12%	21%	33%
Scope 3						
Business travel	225	172	3	100	129	105
Outsourced activities	2,615	2,286	620	1,896	2,005	1,496
Total Significant Scope 3	2,840	2,458	623	1,996	2,134	1,601

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 ₂ e Baseline	GHG emissions 2019-20 in tonnes of CO ₂ e	GHG emissions 2020-21 in tonnes of CO ₂ e	GHG emissions 2021-22 in tonnes of CO ₂ e (revised)	GHG emissions 2022-23 in tonnes of CO ₂ e	GHG emissions 2023-24 in tonnes of CO ₂ e	% Saving from baseline
TOTAL building emissions *Excluding Scope 3 and transport	12,499	11,907	10,460	10,588	9,545	7,770	38%
Schools	7,220	6,799	5,980	5,952	4,902	3,361	53%
All Other Council Buildings *	5,279	5,108	4,480	4,636	4,643	4,409	16%

**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	2023/24 Tonnes CO ₂	Increase/Decrease in % to Baseline
Council Buildings (Scope 1 & 2)	5,279	5,108	4,480	4,636	4,643	4,409	-16%
Owned Transport	2,159	2,177	2,051	2,250	2,132	2,076	-4%
Business Travel	225	172	3	100	129	105	-53%
Total Tonnes	7,663	7,457	6,534	6,986	6,904	6,591	-14%

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 asset management 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 was 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 against the baseline year.

	2018-19	2023-24	Change
<i>Total Number of meters showing usage on GHG report – including 20 Fusion/GLL Leisure sites</i>	510	472	-38
<i>Total number of Council only meters showing usage</i>	250	285	+35
<i>Total number of Schools meters under Council energy contract/ where we have access to usage data</i>	240	187	-53

Leisure sites were managed by a third party (from 1st February 2014 to 1st February 2024) and the resulting emissions were deemed as Scope 3 as these were outsourced. In February 2024 the leisure sites (Oasis swimming pool, Robinson swimming pool, Kempston swimming pool, Bunyan Centre, Athletics Stadium, Mowsbury Park Golf Course, Blue&White Peris, Kempston Outdoor Centre) signed a new managing contract with GLL, the utilities are now paid for by the council therefore for the remaining period in 2023/24, the emissions are included within Scopes 1 and 2 and are now reflected in such categories.

There were a number of schools that left the council's energy contract in 2023-24 due to the high energy prices and schools moving to academy status, this is the reason the council is seeing a large reduction in school emissions.

With schools and sites managed by third parties leaving the energy contracts to seek better prices, this has resulted in a reduction in emissions. 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. One large school in particular left the energy contract which resulted in a reduction of school's emissions by 1800MWh.

The overall emissions are still on a downwards trend from the 2018/19 baseline target. However, with the addition of the leisure sites back into the council's ownership, we are expecting to see a 40% increase in next years emissions based on the very high usage of these sites.

Funding was successfully awarded to Kempston Swimming Pool through the Sports England swimming pool support fund to install solar PV on the roof, which will help to reduce the sites electricity consumption. This should be installed in 2024/25.

Solar PV and battery storage will also be installed at two multi-storey car parks in 2024/25 which have been funded through existing capital budgets.

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. Aligning with the 2022-23 GHG report predictions, 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 has been reflected in this year's reduction.

Brookside Care Home changed from oil to ASHP and has reduced consumption by 313,000kWh compared to the previous year or 118 tonnes CO2 down to 38 tonnes.

Vehicle Fleet Decarbonisation

The council's fleet are trialling hydrogenated vegetable oil (HVO) as an alternative to diesel which, if successful, should have a positive impact on the fuel emissions for the council fleet in 2024/25 reporting year.

Passenger Transport

The 2023/24 report had to use 2022/23 data for passenger transport as the data was unavailable for this year's report. Where possible, we will request this year's data when the service area is less stretched and update the report.

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-mandatorygreenhouse-gas-emissions-reporting-guidance>

The emission factors used to produce this Greenhouse report are those provided for 2023 by Defra and are available at:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

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.

Update for 2023 Electric (Scope 2) emissions

The 2023 conversion factors were published on the 7th of June 2023 and include an increase in the (Scope 2) CO2e emissions factor for electricity from 0.19388teCO2e (2022 data) to 0.207074teCO2e (2023 data), an increase of 7.1%.

This is due to the greater use of natural gas and coal for electricity generation during 2022. The increase will mean that companies will need to report higher emissions for their electricity use. This could lead to companies with carbon reduction commitments not meeting their targets next year as the original expectation from most observers was for electricity to continue getting greener. But what contributed to the higher conversion factor?

The UK has been importing clean, cheap electricity from France for many years. France generates most of its electricity from nuclear power, which is a low-carbon source of energy. In 2022, there were two reasons why we no longer imported the usual amount of electricity from France:

1. The rest of Europe was facing a gas shortage, so France and the UK had to export more electricity to their neighbours.
2. More than half of its fifty-six reactors were taken offline for repairs which had been delayed due to the Covid-19 pandemic.

This meant that the UK had to generate more electricity than usual. The UK's main sources of electricity generation are gas, coal, and wind. Burning coal and gas to generate electricity produces greenhouse gases (GHGs), which contribute to climate change. In 2022, the UK's GHG emissions from electricity generation increased.

Fortunately, the increase in the use of gas for electricity generation appears to have been a temporary "blip". The French nuclear fleet is now back online, so the UK is expected to return to importing more electricity from them in 2023. This will help to once again reduce the UK's reliance on fossil fuels and lower its GHG emissions.

Transmission and distribution losses (T&D)

The council has 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 2023 to 31st March 2024

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 CO₂e per head of population” based on mid-year population statistics.

2023/24 - population estimate (taken from WasteDataFlow) is 187,466.

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 (2023/24) 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 2025.

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.