Annual Greenhouse Gas Report 2024-25

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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 CO_2*

Council Controlled	2018/19 Tonnes of CO2
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.

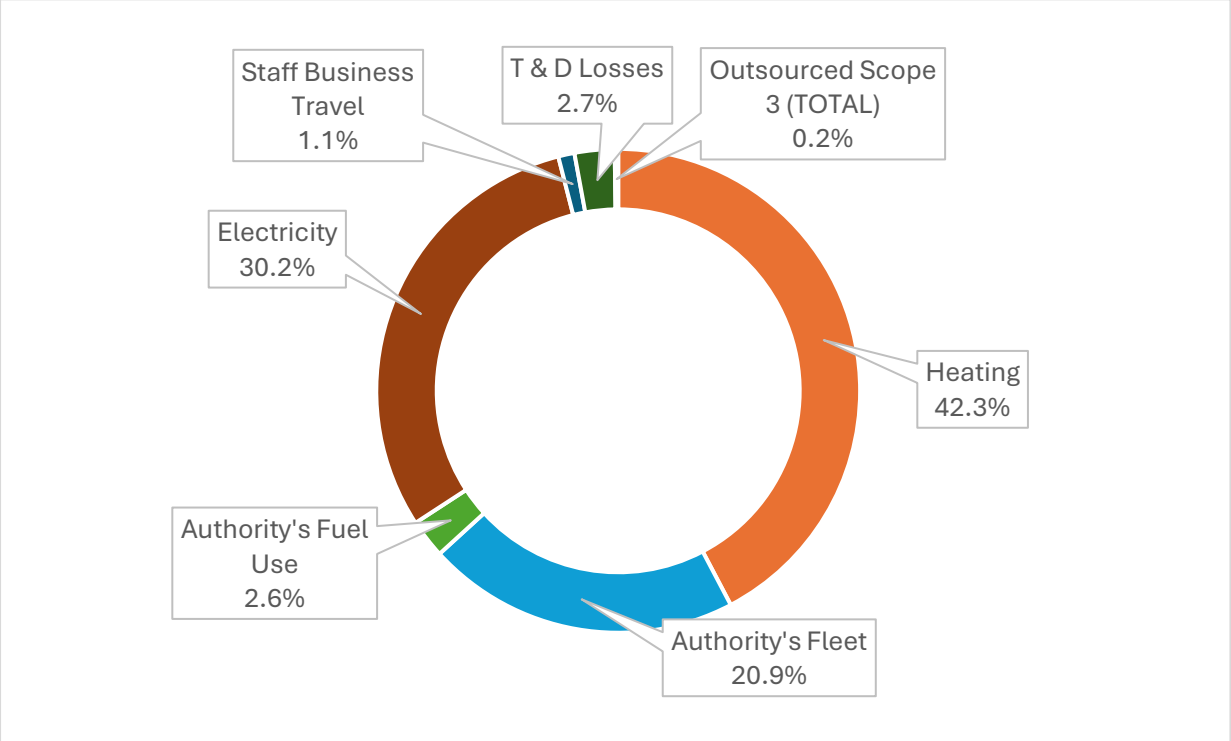
Since this baseline was set, it is proposed that an annual reconciliation of the existing data is completed to ensure any data management issues are resolved, i.e. the completeness of the baseline inventory and problems with basic data availability at the time of completion. This may impact on the emissions 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 2024-25

The below chart shows Council buildings (including Leisure sites), Owned Transport, Electricity Scope 2, and Business mileage and any other Outsourced activities in Scope 3.



The following report summarises the council's actual carbon emissions for 2024-25 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_2e						
	2018-19 Baseline	2019-20	2020-21 (Revised)	2021-22 (Revised)	2022-23	2023-24 (Revised)	2024-25
Scope 1	8,308	8,535	8,206	8,478	7,266	6,388	7,542
Scope 2	6,349	5,550	4,305	4,361	4,409	3,459	3,682
Scope 3	2,840	2,458	623	1,996	2,134	1,580	110
Out of scopes (biomass)	-			-	2.5	-	-
Total gross emissions	**17,498**	**16,543**	**13,134**	**14,835**	**13,811**	**11,447**	**11,334**
Carbon offsets	0				0	-	-
Green tariff	0				0	-	-
Total net emissions	**17,498**	**16,543**	**13,134**	**14,835**	**13,811**	**11,447**	**11,334**
Intensity measurement "Tonnes of CO_2e per head of population"	0.1	0.1	0.08	0.085	0.074	0.061	0.060
Overall Percentage saving to Baseline	**-**	**5%**	**25%**	**15%**	**21%**	**35%**	**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.

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.

	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 CO_2e	GHG emissions 2023-24 in tonnes of CO_2e	GHG emissions 2024-25 in tonnes of CO_2e
Scope 1							
Gas consumption	5,277	5,591	5,515	5,531	4,484	4,173	5,464
Heating Oil consumption	802	675	541	580	544	121	95
Owned transport	2,159	2,177	2,051	2,250	2,132	2,076	1,961
LPG	71	92	99	116	106	19	22
Total Scope 1	**8,308**	**8,535**	**8,206**	**8,478**	**7,266**	**6,388**	**7,542**
Scope 2							
Purchased electricity	6,349	5,550	4,305	4,361	4,409	3,459	3,682
Total Scope 2	**6,349**	**5,550**	**4,305**	**4,361**	**4,409**	**3,459**	**3,682**
Scope 1+2 saving to Baseline	**-**	**4%**	**15%**	**12%**	**21%**	**33%**	**23%**
Scope 3							
Business travel	225	172	3	100	129	105	90
Outsourced activities	2,615	2,286	620	1,896	2,005	1,496	20
Total Significant Scope 3	**2,840**	**2,458**	**623**	**1,996**	**2,134**	**1,601**	**110**

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):

	2018-19 tonnes of CO_2e Baseline	2019-20 tonnes of CO_2e	2020-21 tonnes of CO_2e	2021-22 tonnes of CO_2e (revised)	2022-23 tonnes of CO_2e	2023-24 tonnes of CO_2e	2024-25 tonnes of CO_2e	% Saving from baseline
TOTAL building emissions *Excluding Scope 3 and transport	12,499	11,907	10,460	10,588	9,545	7,770	9,263	**26%**
Schools	7,220	6,799	5,980	5,952	4,902	3,361	3,217	**55%**
All Other Council Buildings *	5,279	5,108	4,480	4,636	4,643	4,409	**6,046**	**-15%**

**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 e Baseline	2019/20 Tonnes CO_2 e	2020/21 Tonnes CO_2 e (revised)	2021/22 Tonnes CO_2 e (revised)	2022/23 Tonnes CO_2 e	2023/24 Tonnes CO_2 e	2024/25 Tonnes CO_2 e	% increase/ decrease from baseline
Council Buildings (Scope 1 & 2)	5,279	5,108	4,480	4,636	4,643	4,409	6,046	**15%**
Owned Transport	2,159	2,177	2,051	2,250	2,132	2,076	1,961	**-9%**
Business Travel	225	172	3	100	129	105	90	**-60%**
Total Tonnes	**7,663**	**7,457**	**6,534**	**6,986**	**6,904**	**6,590**	**8,097**	**6%**

The addition of the Leisure sites under the Councils financial control has resulted in an increase of 15% in council building emissions and overall, a 6% increase compared to the 2018/19 baseline.

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. leisure sites) and some sites continue to grow and expand (e.g. schools).

The below table was an addition in the 2024/25 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	2024-25	Change
Total Number of meters showing usage on GHG report – including 20 GLL Leisure sites	510	476	-34
Total number of Council only meters showing usage	250	294	+44
Total number of Schools meters under Council energy contract/ where we have access to usage data	240	182	-58

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, in 2024/25 the emissions are now fully included within Scopes 1 and 2.

However, with the addition of the leisure sites back into the council's ownership, making up 31.52% of our current scope 1 and 2 emissions (excluding schools), we have seen a 15% increase from the baseline in non-schools buildings due to the very high usage of the sites added on our

portfolio, negatively impacting the Councils carbon emissions reduction trajectory. Without the addition of the leisure sites to Scopes 1 and 2, Council sites would have seen a reduction of 1,905.65 tonnes CO_2e in 2024/25 compared to the baseline.

Scope 1+2 Comparison	Leisure Only 24/25 tCO_2e	Without Leisure (non-schools) tCO_2e
Total Gas	1,487.07	2,008.01
Total Burning Oil	-	-
Total Gas Oil	30.11	-
Total Electricity	386.27	2,132.49
Total LPG	2.20	-
SUBTOTAL	**1,905.65**	**4,140.50**
PERCENT OF TOTAL	**31.52%**	**68.48%**

	2018/19 Baseline tCO2	2024/25 With leisure tCO2	2024/25 Without leisure tCO2
Council buildings(ex schools)	5279	6046	4141
Increase / decrease		+ 15%	- 21%

There were a number of schools that left the council's energy contract in 2024-25 due schools moving to academy status, this is the main 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 or consolidate their own academy estates, 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 702MWh.

However, with the electricity value coming down to 177g CO_2e/kWh for the next reporting year (-14.51% compared to the current reporting year), our electric emission's decarbonisation trajectory is expected to increase year on year in line with governments objective to decarbonise the grid.

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 by an estimated figure of 116,429kWh which will be fully realised in 2025/26 reporting period.

Solar PV and battery storage has been installed at Queen Street multi storey car park, funded through existing capital budgets. Whilst the savings have not been realised in this report, in March alone, the car park reduced its costs and consumption by over 50%, saving over 6 tonnes of CO2e in the first half of 2025, generating 8MWh of Solar Power in February and March 2025 alone. Another similar project is due to be completed in summer 2025, with the reduction in consumption available for some of 2025/26 reporting year.

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 subsequent years' reduction.

However, the withdrawal of future PSDS funding will impact our ability to conduct further heat decarbonisation projects on our site portfolio, especially where returns on investment are marginal, instead focusing our future work on realising greater energy security by continuing to invest in renewable generation installations and energy efficiency measures.

To date, the Council's Solar Generation investments have resulted in 139,120kWh solar generation from FIT sites, in addition to 4,461MWh generated by the award-winning Elstow solar project.

Vehicle Fleet Decarbonisation

The transport emissions are still on a downwards trend from the 2018/19 baseline target.

The council's fleet have trialled hydrogenated vegetable oil (HVO) as an alternative to diesel, with savings reflected in this report. However, the trial has been paused due to technical difficulties encountered, and we may run forthcoming trials pending investigation of the issues associated with HVO.

All diesel compact sweepers in the Council's fleet are now electric.

Passenger Transport

The 2024/25 report has shown further carbon reduction in passenger transport compared to the 2022/23 data available (2023/24 data was estimated).

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 2024 by Defra and are available at:

https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024

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 2024 Electric (Scope 2) emissions

The 2024 conversion factors were published on the 7th of July 2024 and include an increase in the (Scope 2) CO_2e emissions factor for electricity from 0.207074tCO_2e (2023 data), to 0.20705 tCO_2e, remaining to a similar level.

This is due to a balancing act between an increase in demand and decrease in UK generation, made possible thanks to a 40% rise in imports. This year renewable generation increased by 6.5% in renewable generation, which also makes 2024 the first year the renewable share has exceeded 50% of the total UK generation (going up to 50.8%).

The strong renewable generation has also displaced the use of generation by fossil fuels by 16%, with gas remaining the largest supplier of electricity generation on a 15% downtrend, with a share of 30.3% of the total UK generation.[2]

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 2024 to 31st March 2025

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.

[2] https://www.gov.uk/government/statistics/energy-trends-march-2025

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.

2024/25 - population estimate (taken from WasteDataFlow) is 189,891.

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 (2024/25) 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 2026.

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.