

Greenhouse Gas Emissions Report 2022-23

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Introduction

Blaby District Council (BDC) is committed to measuring and reporting its environmental performance in order to better understand its impacts and to monitor progress towards the targets in its Climate Change Strategy 2021. The 2022-23 Greenhouse Gas Report forms part of BDC's 2030 Net Zero¹ Action Plan and its commitment to become a Net Zero Council for its own operational emissions by 2030.

This report focusses on BDC's own operational greenhouse gas (GHG) emissions for the 2022- 23 reporting period and the Council's 2030 net zero ambition, which includes emissions from the Council's buildings, fleet vehicles, business travel, water and waste.

The full scope of emissions included in this report are provided in Appendix 1. The Council has used Local Partnerships Carbon Accounting Tool which follows the Government's Environmental Reporting Guidelines, published by BEIS and DEFRA (2019), alongside international best practice guidance from the Greenhouse Gas Protocol. In accordance with Government recommendations, this report is published on the Council's website.

¹ **Net zero** refers to the point when greenhouse gas emissions being emitted into the atmosphere are balanced with their removal, meaning there is no overall addition to atmospheric levels.

Executive Summary

Since the baseline year (2018/19) there has been a 42% drop in the council's greenhouse gas emissions. There has been 30% drop since 21/22 following a partial transition from diesel to hydrotreated vegetable oil (HVO) as a fuel. Despite this encouraging trend further work is needed to reduce energy consumption across the organisation (both gas and electricity), reduce and decarbonise business travel and generate on-site renewable energy.

Organisation Information

Blaby District Council
Council Offices,
Desford Road,
Narborough
LE19 2EP

Reporting Period

1st April 2020 to 31st March 2021

Organisational Boundary and operational Scope

The Council has followed the Government's Environmental Reporting Guidelines, published by BEIS and DEFRA (2019), alongside international best practice guidance from the Greenhouse Gas Protocol. The organisational boundary for reporting the Council's GHG emissions, for its own operations and activities, is Operational Control.

The operational scope includes the direct emissions from building heating and fleet (scope 1) and purchased electricity for buildings (scope 2) resulting from the owned and leased assets and operations where the Council is in operational control and is responsible for the purchase of energy or fuel. Some scope 3 emissions are also included: business mileage (grey fleet) and water supply & treatment.

All greenhouse gas emissions are expressed as tonnes of carbon dioxide equivalent (tCO₂e). See Appendix 1 for more information about scopes and sources of emissions.

Baseline Emissions and Targets

The adopted baseline year is 2018-19. Where there are relevant significant changes in the factors that informed the calculation of the base year emissions, such

as the sale of council buildings, then the emissions for the base year and the year prior to the reporting year will be recalculated. The 2030 Net Zero Council Action Plan includes a commitment to reduce carbon emissions from the Council’s own estate and operations to net zero by 2030.

Calculation Method

The Council has followed the Government’s Environmental Reporting Guidelines, published by BEIS and DEFRA (2019), alongside international best practice guidance from the Greenhouse Gas Protocol.

2022-23 Greenhouse Gas Emissions

	Sector	2018/19 baseline	2022/23	% Change
Scope 1 (Direct emissions e.g. gas boilers, owned transport)	Buildings	80.9	89.4	+9.5
Scope 1	Authority Fleet	603.06	354.67	-41.2
Sub-total		683.9	440.25	-35.6
Scope 2 (Indirect e.g. purchased electricity)	Electricity	96.22	53.21	-39.4
Sub-total		96.22	53.21	-44.7
Scope 3 (other indirect e.g. business travel, water supply)	Staff Travel	46.01	38.88	-15.5
Scope 3	T & D Losses	8.2	4.87	-40.7
Scope 3	Water	0.9	0.56	-37.8
Sub-total		55.19	44.31	-28.5
Total Gross Emissions		835.34	541.56	-35.2
	Renewable electricity tariff		-53.21	
Total Market Based Emissions		835.34	484.56	- 42%

Figure 1. BDC 2022-23 GHG emissions, with a comparison to the baseline year

2022/23 GHG Emissions By Source

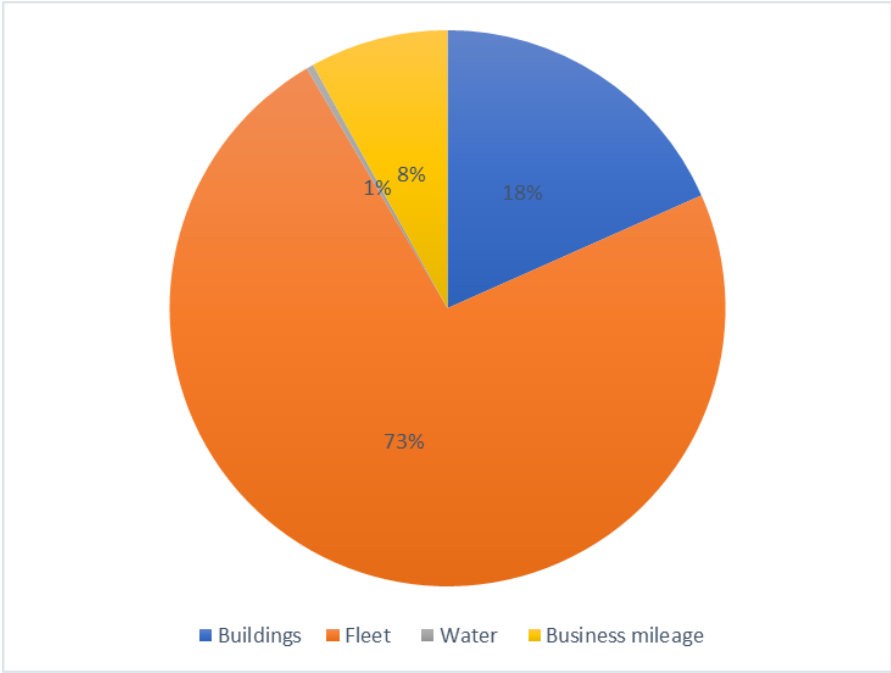


Figure 2. BDC 2022/23 GHG emissions by source

Performance Against Baseline and previous years

Blaby District Council net greenhouse gas emissions have reduced by 42% compared to the baseline year 2018/19. There has been a 30% reduction compared to the 2021/22 financial year. This has been achieved primarily by switching from diesel to HVO fuel for some of our fleet vehicles. It is expected that in the next financial year emissions reported will drop further as there will have been a full year of data on the HVO switch.

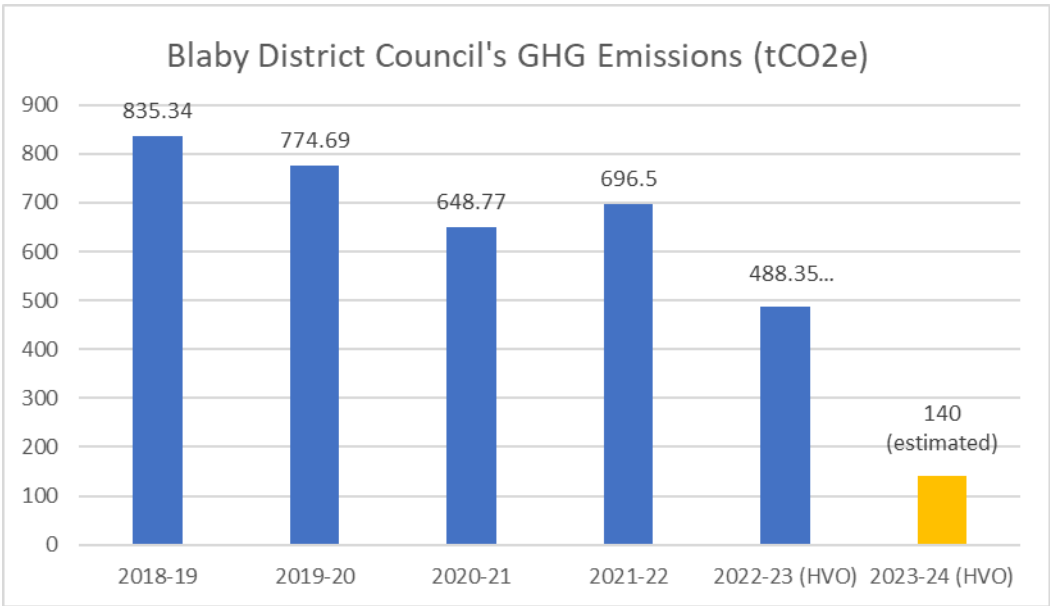


Figure 3. GHG Emissions compared to baseline and preceding years and estimation for full adoption of hydrotreated vegetable oil (HVO) fuel.

Building Heating and Electricity (Scope 1 and 2 emissions)

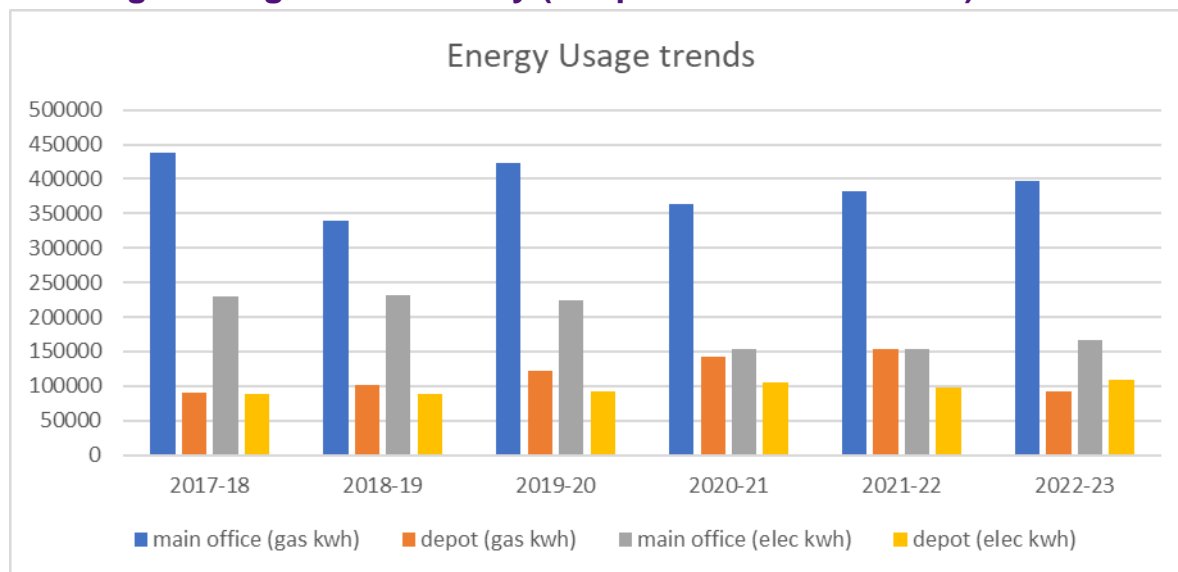


Figure 4. Energy usage trends (kWh)

Energy usage trends over the last 5 years show that we are not making sufficient progress to minimise energy use. While main office gas and electricity are lower than baseline year, the use of both has increased annually over last 3 years. Depot gas usage is the only noticeable reduction having gone down to 2017/18 levels.

It is therefore a key action is to improve the monitoring of our energy use in order to determine why these increases are occurring and if energy is being wasted. The old gas boilers at the main office were replaced in August 2023 which should reduce gas usage due to their improved efficiency. However the council will need to look at how we decarbonise heat at both the Depot and Main offices going forward.

Business Travel (Scope 3 emissions)

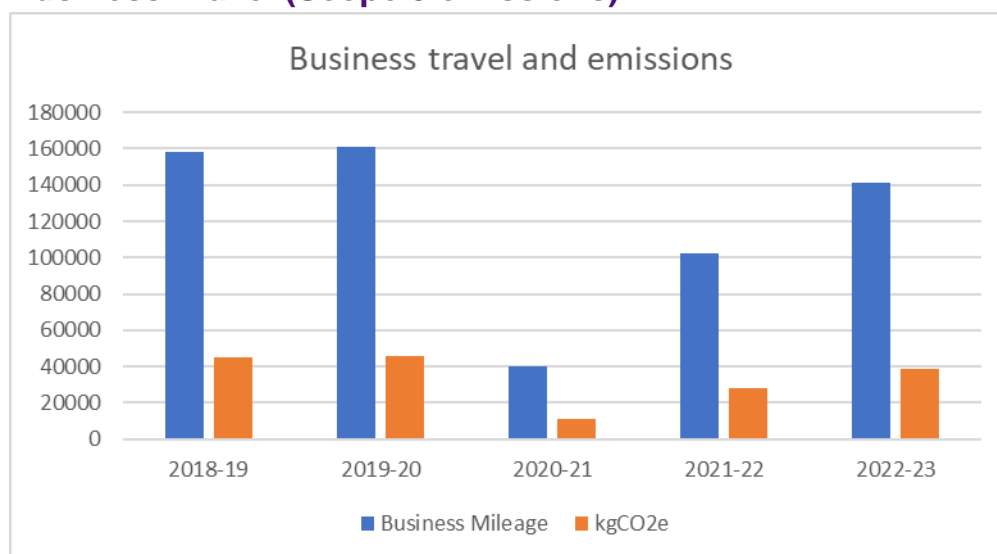


Figure 5. Business travel and associated emissions (kgCO2e) per year

Following a large reduction in business travel during Covid business mileage has steadily increased over the last 3 years. Most of this increase can be attributed to the return of council services and operations post-Coronavirus, including the need to travel for business purposes. Business mileage emissions remain significantly lower than pre-Coronavirus with many council staff utilising smarter working practises, such as online and hybrid meetings, flexible working, and home working. The expansion of the Building Control service however may lead to mileage rates in 2023/24 exceeding pre Covid levels. It is therefore imperative that the Council takes steps to address the decarbonisation of business travel over the coming years.

Market-Based Emissions and Green Tariff

The council changed its electricity contract to a green tariff in 2021/22 which means that all electricity used now comes from renewable energy sources. In recognition of the council's positive step in having a green energy tariff and supporting national decarbonisation of the electricity grid by increasing demand for low-carbon energy, the GHG report considers the council's emissions following a market-based approach to reporting emissions. A market-based approach enables the council to directly reflect the emissions associated with the electricity it purchases for its operations. Following this approach, the council's electricity emissions from 2022/23 (53.21tCO₂e) are considered zero emission due to the electricity being produced by renewable sources. Despite this it remains an absolute priority for the council to minimise its electricity use as far as possible and generate renewable energy at a local level.

Out of Scope Emissions

Blaby District Council acknowledges the importance of acting to reduce its wider scope 3 emissions. This includes carbon associated with the council's supply chain, leased assets, employee commuting and investments. It also includes those emission that arise from assets and services not operated by the council and have limited influence over. During 2020/21 the council commissioned a study into its purchased goods and services scope 3 emissions. This is the first step into quantifying what is a highly complex and subjective area and will need further development. The council provided detailed extracts from its finance system covering, suppliers, purchase orders, invoices and journaled transactions. Artificial intelligence was the used to extract the product data from the descriptions. This was then used to calculate the carbon footprint of the matched products using MRIO data from CenSA (now University of Leeds as used by DEFRA).

Future action

The Council recognises that further action is required to achieve our aims. The Council 2030 Net Zero Action Plan sets out a number of actions either already in delivery or in design to ensure that we reduce our greenhouse gas emissions to net zero by 2030. This includes the electrification of the depot and vehicle fleet, decarbonising business travel, rooftop solar PV, battery storage and air source heat pumps.

Appendix 1 - Operational Scopes

The Council has measured scope 1, 2 and some of scope 3 emissions within the GHG Report, where accurate and annual data is available. The different scope of emissions are described below:

Scope 1 (direct emissions) Activities owned or controlled by the Council that release emissions straight into the atmosphere. Examples include emissions from owned or controlled boilers and vehicles.

Scope 1	Details
Council combustion e.g. gas, solid and liquid fuels in boiler plant	All fuel used in BDC owned and leased buildings.
Owned and leased transport	Fuel consumption included where BDC pays for fuel.
Fugitive emissions	Excluded due to lack of good quality information and availability of data on refrigeration and air conditioning equipment

Scope 2 (energy indirect) Emissions being released into the atmosphere associated with the consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of the Council's activities, but which occur at sources not owned or controlled.

Scope 2	Details
Purchased electricity	All electricity used in all BDC owned and leased buildings where we have operational control and are responsible for the bills.

Scope 3 (other indirect) Emissions are a consequence of the Council's actions, which occur at sources which are not owned or controlled. Examples of scope 3 emissions include business travel (e.g. use of staff vehicles or public transport), employee commuting, and purchased goods and services.

Scope 3	Details
T&D Losses	Transport and distribution emissions from energy, gas, liquid and solid fuels consumption have been excluded e.g. diesel, LPG, coal, electricity and natural gas
Business travel	Business travel included with the exception of public transport.
Employee commuting	Excluded due to lack of good quality information and availability of data.
Working from home	Excluded due to lack of good quality information and availability of data.
Material use	Excluded due to lack of good quality information and availability of data.
Water Supply and treatment	Included
Waste generated in operations	Excluded due to lack of good quality information and availability of data.
Purchased goods and services	Excluded due to lack of good quality information and availability of data.
Downstream leased assets	Excluded due to lack of financial or operational control (Leisure Centres)

Scope 3	Details
Investments	Excluded due to lack of good quality information and availability of data.