



Gedling Borough Council 2024/25 Scope 1, 2 and 3 Carbon Emissions

Report

Report produced in February 2026



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Association for Public Service Excellence
3rd floor Trafford House
Chester Road, Old Trafford
Manchester, M32 0RS
Telephone: 0161 772 1810
fax: 0161 772 1811
Email: enquiries@apse.org.uk
Web: www.apse.org.uk

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Executive Summary

This report compares the scope 1, 2 and 3 carbon emissions of the Council. The 2024/25 net carbon footprint from Scope 1, 2 & 3 emissions within Gedling Borough Council's operations is **1,414 tCO₂e**.

The chart below shows the comparison of carbon emissions from 2019 to 2024/25 where the emissions have increased by 112 tCO₂e from 2022/2023. This is due to the inclusion of Scope 3 in 2023/2024 as it is the first year the Council has included this data in its reporting. However, when compared to 2019, the Council's emissions have actually decreased by 241 tCO₂e despite the inclusion of Scope 3 in 2023/2024.

Chart showing the Council net carbon emissions from 2019 to 2024/2025

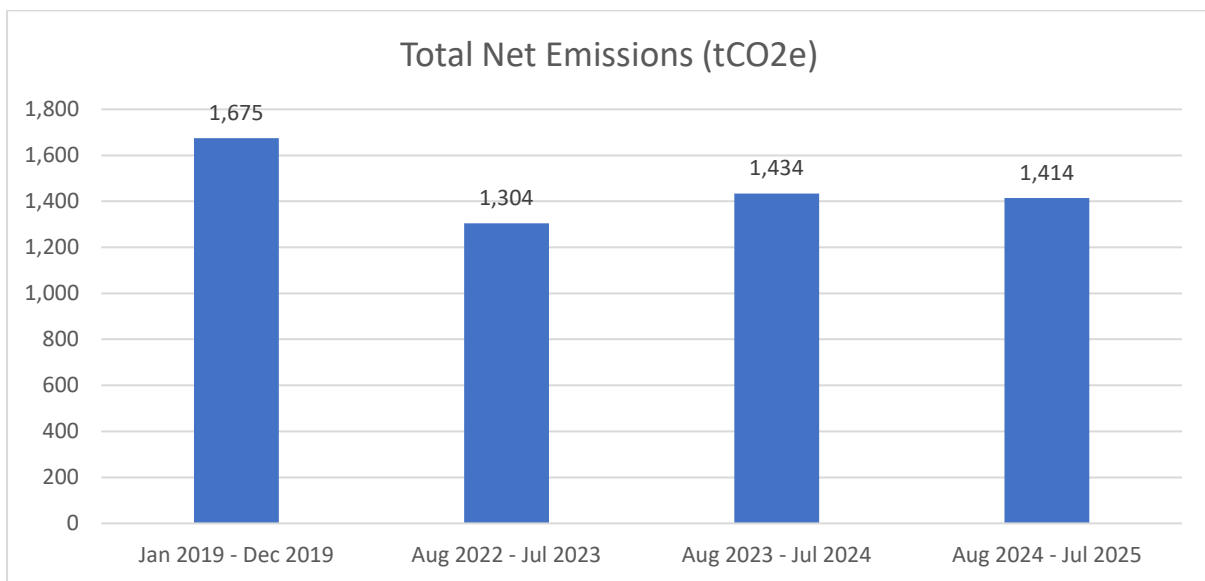
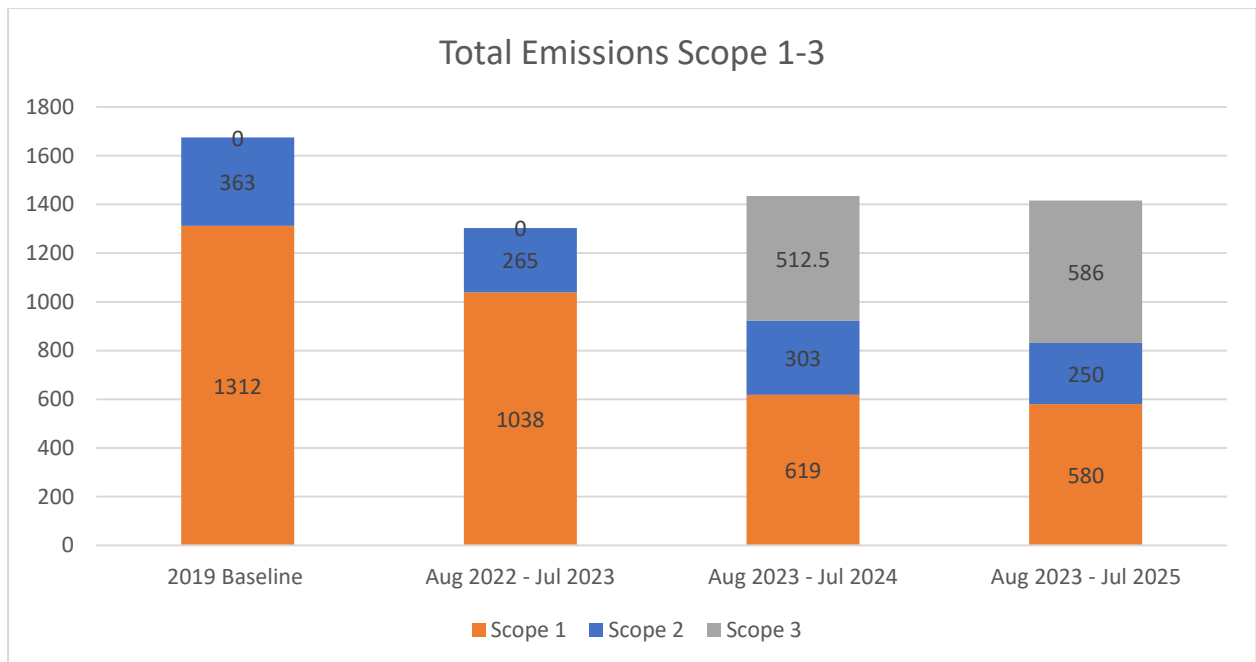


Chart showing the Council net carbon emissions scope breakdown from 2019 to 2024/2025



The gross emissions are 1,416 tCO₂e and the net emissions are 1,414 tCO₂e. The net emission are calculated by deducting 2 tCO₂e from the gross emissions as this is an offset from electricity that is exported to the grid that is generated by solar panels.

All figures and graphs have been rounded to the nearest whole number as is common practice especially with regard to large numbers. As a result, some sub-totals may not sum precisely to totals due to rounding. Related figures can be found in the associated spreadsheet Appendix A.

Gedling Borough Council Carbon Emissions

1 Introduction

This report provides an update to the carbon footprint for Gedling Borough Council which can be used to monitor performance for emitting carbon in the Council's own operations. The carbon footprint has been undertaken in accordance with best practise guidance by the Greenhouse Gas Protocol and calculated using conversion factors for the carbon dioxide equivalent (CO₂e) published by Department for Energy Security and Net Zero (DESNZ).

This report was based on data covering the period August 2024 to July 2025 and compares emissions from the baseline calendar year of 2019.

The carbon footprint is categorised into scopes, which cover:

Scope 1 (direct) emissions are from activities owned or controlled by the Council. Examples of Scope 1 emissions include emissions from combustion in council owned or controlled boilers, furnaces and vehicles.

Scope 2 (indirect) emissions are associated with purchased electricity, heat, steam and cooling. These indirect emissions are a consequence of the Council's energy use but occur at sources that the Council do not own or control. Examples include grid supplied electricity and heat provided through a heat network.

Scope 3 (other indirect) emissions are a consequence of the Council's actions that occur at sources the Council do not own or control and are not classed as Scope 2 emissions. Examples of Scope 3 emissions include business travel by means not owned or controlled by the Council (grey fleet), disposing of the Council's own waste and purchased goods in the supply chain, etc.

2 Carbon Footprint

2.1 Carbon Reporting Boundaries

The organisational boundaries determine what emissions are the responsibility of the Council or others. This can be based on who owns, operates or exerts control over certain assets. The buildings categorised under Scope 1 & 2 within this report are those where energy is purchased or acquired and consumed by the Council. The vehicles categorised under Scope 1 are vehicles that the Council own, lease and operate purely for the Council's own operations.

Scope 3 emissions are classified under 15 different categories as detailed under Appendix B. As Scope 3 emissions are under the influence of the Council, but not under its direct control, it can be difficult to obtain the necessary data to calculate the associated carbon emissions from some Scope 3 sources. One of the larger contributors to carbon emissions is purchased goods and services.

Emissions from assets a company owns and leases to another entity, but does not operate, can either be included in Scope 3 or excluded from the inventory.

In previous years the Council has just reported on Scope 1 & 2 emissions and not Scope 3. However, for the year of August 2023 – July 2024 the Council has reported on Scope 3.

Based on the data available that was provided in 2024/2025, the emissions involved in this reporting include:

Scope 1 - Direct Emissions
Natural gas used in buildings
Transport fuels (Council owned vehicles)
Scope 2 - Indirect Emissions
Electricity used in buildings
Scope 3 - Other Indirect Emissions
Gas – transmission emissions
Fuels – transmission emissions
Electricity – transmission
Water Supply
Water Treatment
Business Travel by car
Waste from Council operations
Recycling from Council operations
Employees working from home
Staff Commute to Work

The emissions from the above sources represents a good data set for a council, as it is not uncommon for councils to only have data available for electricity and gas.

A new addition for 2024/2025 is the staff commute to work data.

There are sources that are missing from the reporting, and the largest contributor is likely to be from purchased goods and services, which is generally very difficult to gather data and calculate emissions. This category includes all upstream (i.e. cradle-to-gate) emissions from the production of products purchased or acquired by the Council in the reporting year. Products include both goods (tangible products) and services (intangible products).

Cradle-to-gate emissions include all emissions that occur in the life cycle of purchased products, up to the point of receipt by the Council. Relevant purchases to the Council may include capital goods, such as office supplies, office furniture, computers, telephones, travel services, IT support, outsourced administrative functions, consulting services, janitorial, landscaping services, maintenance, repairs and operations.

The Council should set up procedures to record all emission sources related to its operations for future reporting.

2.2 Carbon Emissions

Appendix A is an Excel spreadsheet that shows a breakdown of the emissions by source. The Council has been calculating its carbon emissions inhouse from 2019 (the baseline year). APSE Energy have calculated the carbon emissions from 2022/23 to 2024/25. Appendix A shows a summary for the emissions for all years and separate tabs showing a breakdown for each source in the most recent year (2024/25).

Emissions are calculated as carbon dioxide equivalent (CO₂e), which is a term used to combine the seven most threatening gases that have the highest Global Warming Potential. This includes carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride.

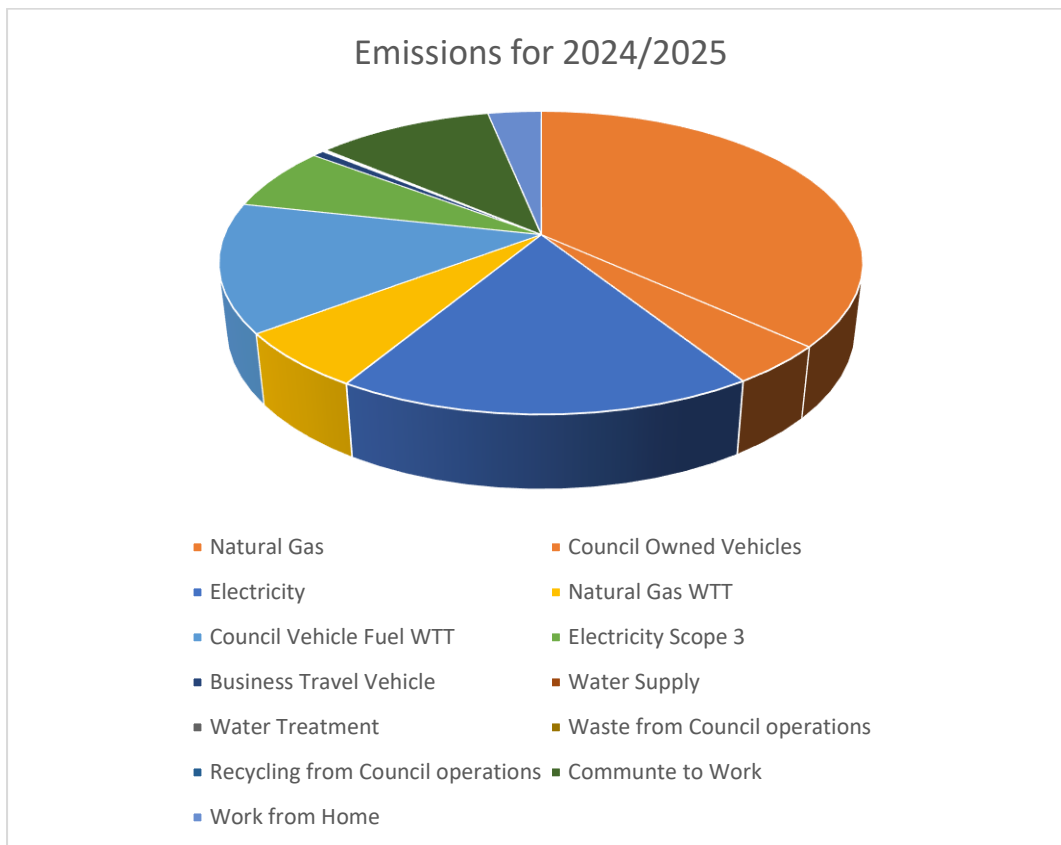
The carbon footprint has been calculated using the best data that was available to the Council during the reporting year, and it is the Council's responsibility to confirm the accuracy.

2.3 Emissions for 2024/2025

Scope 1, 2 & 3 carbon emissions by source for 2024/2025

Emissions Source	Scope	% Split	Tonnes CO2e
Natural Gas	1	36.7%	520
Council Owned Vehicles		4.3%	60
Electricity	2	17.7%	250
<u>Scope 1&2 Total</u>	-	-	<u>831</u>
Natural Gas WTT	3	6.1%	86
Council Vehicle Fuel WTT	3	13.7%	195
Electricity Scope 3	3	6.8%	97
Business Travel Vehicle	3	0.7%	9.8
Water Supply	3	0.1%	1.5
Water Treatment	3	0.1%	1.3
Waste from Council operations	3	0.1%	0.7
Recycling from Council operations	3	0.0%	0.2
Communte to Work	3	10.6%	150
Work from Home	3	3.2%	45
<u>Scope 3 Total</u>	-	-	<u>586</u>
Overall Total	-	100%	<u>1416</u>
PV Export	-	-	1.9
Net Emissions	-	-	<u>1414</u>
Outside of Scope			786

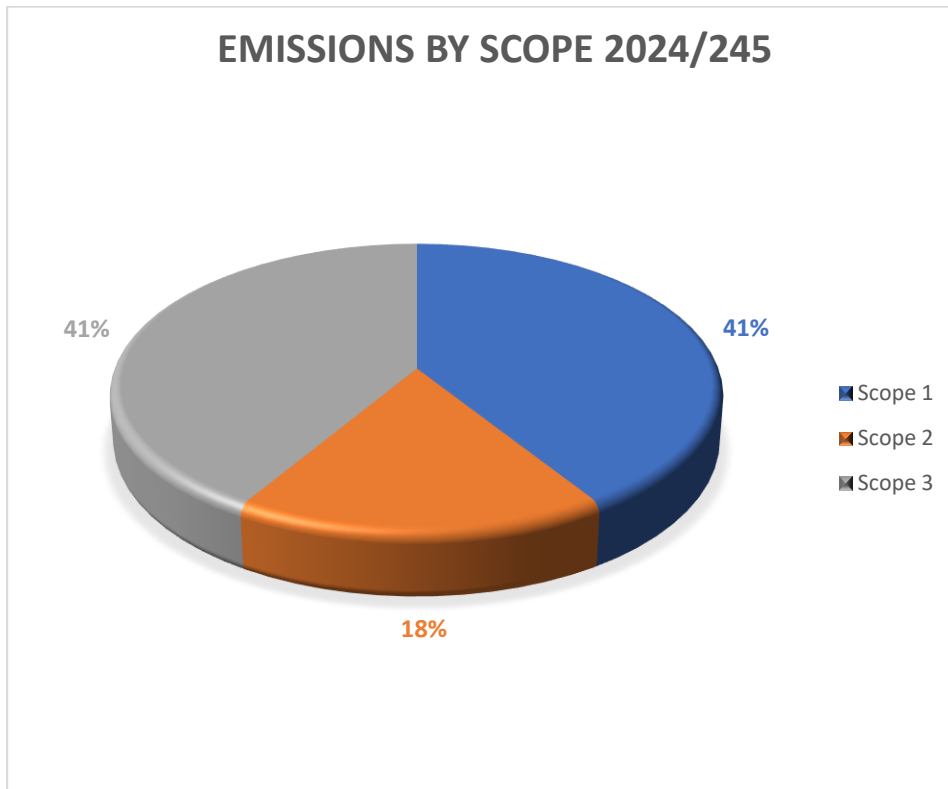
Carbon emissions by source for 2024/2025



Carbon emissions by scope for 2024/2025

2023/2024		
Emissions Source	% Split	Tonnes CO2e
Scope 1	41%	580
Scope 2	18%	250
Scope 3	41%	586
Total	100%	1,416

Carbon emissions by scope for 2024/2025



2.4 Comparison Between 2024/2025 and Baseline 2019

The table below shows a comparison of the emissions between the baseline calendar year of 2019 and August 2024 to July 2025.

Emissions Source	Scope	2019 Tonnes CO2e	2024/2025 Tonnes CO2e	Difference
Natural Gas	1	499	520	4%
Vehicles	1	813	60	-93%
Electricity	2	363	250	-31%
Scope 1&2 Total		1675	831	-50%
Natural Gas WTT	3	N/A	86	
Council Vehicle Fuel Oil WTT	3	N/A	195	
Electricity T&D	3	N/A	97	
Business Travel Vehicle	3	N/A	9.8	
Water Supply	3	N/A	1.5	
Water Treatment	3	N/A	1.3	
Waste from Council operations	3	N/A	0.7	
Recycling from Council operations	3	N/A	0.2	
Communte to Work	3	N/A	150	
Work from Home	3	N/A	45	
Scope 3 Total		0	586	
Total	-	1,675	1,416	-15%

The table shows that overall recorded emissions have decreased by 15%. This is despite the Council including Scope 3 emissions from 2023/2024 which totalled an extra 586 tCO₂e in the current year.

In a direct comparison with Scope 1&2, which were included in 2019, the emissions have decreased by 56% over the period. This was largely due to the significant 93% reduction in emissions from Council owned vehicles, caused by the transition to HVO from diesel.

2.5 Carbon Emissions Performance

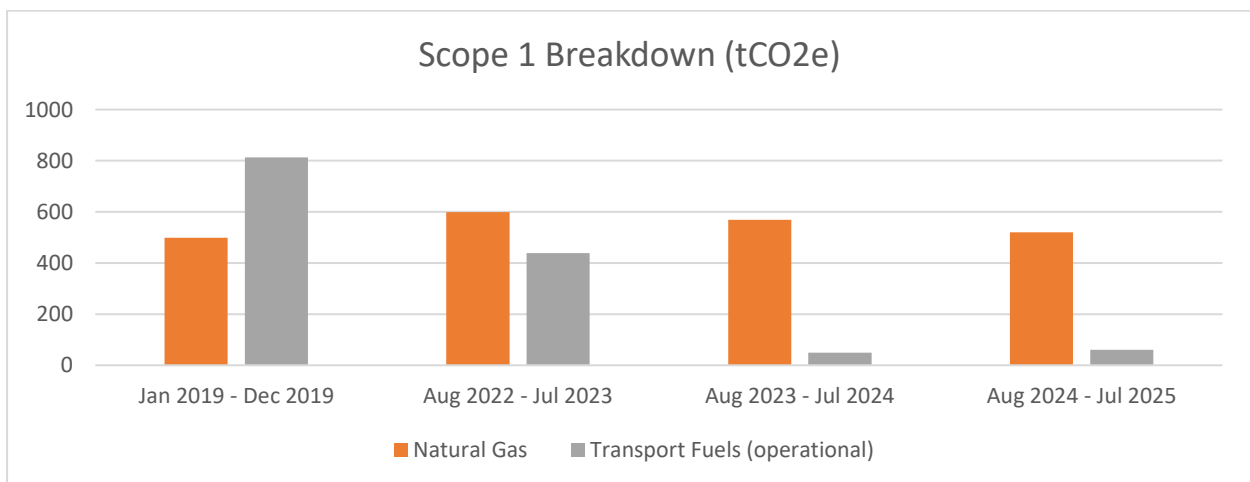
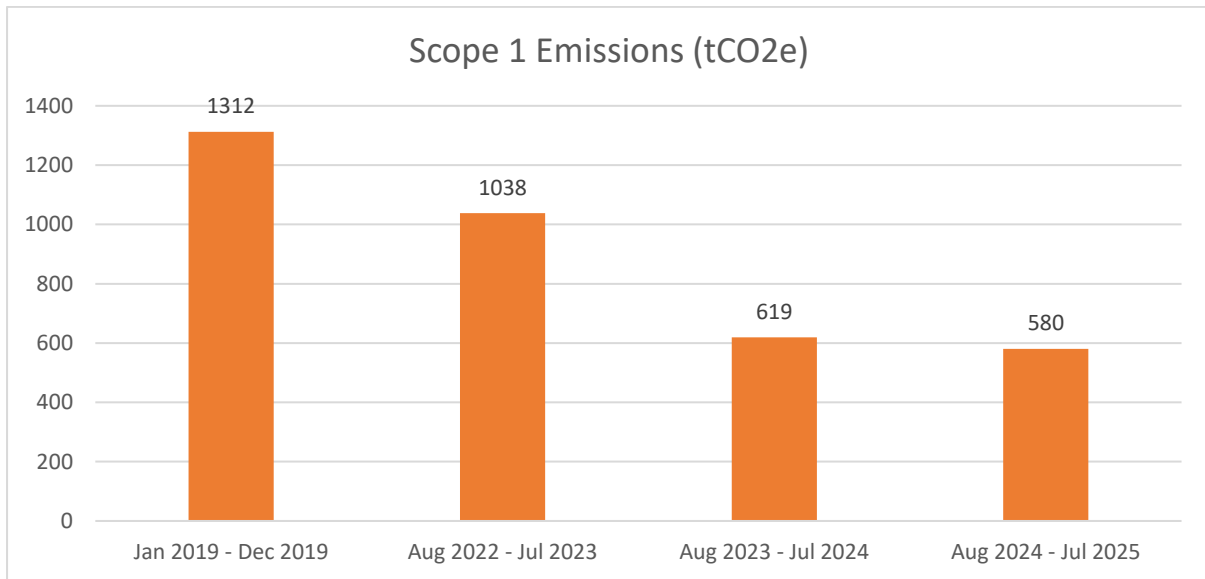
		Tonnes CO ₂ e			
Emissions	Baseline Year		Reporting Year	Reporting Year	
	Jan 2019 - Dec 2019	Aug 2022 - Jul 2023	Aug 2023 - Jul 2024	Aug 2024 - Jul 2025	
Scope 1 - Direct Emissions	1312	1038	619	580	
Natural Gas	499	599	569	520	
Transport Fuels (operational)	813	439	50	60	
Scope 2 – Electricity Emissions	363	266	303	250	
Total Scope 1 & 2 Emissions	1,675	1,304	922	831	
Scope 3 – Indirect Emissions			512	586	
Gas – transmission emissions (WTT)	Not Available	Not Available	94	86	
Council Vehicle Fuel WTT	Not Available	Not Available	189	195	
Electricity – Scope 3	Not Available	Not Available	100	97	
Water Supply	Not Available	Not Available	10	1.5	
Water Treatment	Not Available	Not Available	10	1.3	
Business Travel by car	Not Available	Not Available	10	9.8	
Waste from Council operations	Not Available	Not Available	1	0.7	
Recycling from Council operations	Not Available	Not Available	0.3	0.2	
Staff Commute to Work	Not Available	Not Available	Not Available	150	
Working from Home	Not Available	Not Available	99	45	
Total Gross Emissions	1,675	1,304	1,434	1,416	
Carbon offset/ Renewable Co2 Avoided					
Solar PV Exported	Not Available	Not Available	Not Available	1.9	
Total Net Emissions	1,675	1,304	1,434	1,414	
Further Information					
Out of Scope					
Consumption of HVO	Not Available	339	777	786	
Renewable CO2 Avoided					
Carbon savings for solar PV electricity generated and consumed on site	Not Available	Not Available	5.700972674	1.8	
Time Period	Jan 2019 - Dec 2019	Aug 2022 - Jul 2023	Aug 2023 - Jul 2024	Aug 2024 - Jul 2025	
Degree Days at 15.5 °C	2338	2169	2097	2,199	
(an indicator of heat demand)			-3%	-5.9%	
Summary of energy usage					
Total electricity kWh	1,420,814	1,284,634	1,462,264	1,413,952	
		Percentage Change:	0	-0.48%	
Total gas kWh	2,714,283	3,277,143	3,112,347	2,842,472	
		Percentage Change:	0	4.72%	
Conversion Factors used above					
Electricity kWh to kgCO ₂ e	0.2556	0.207074289	0.20705	0.177	
Gas kWh to kgCO ₂ e	0.18385	0.182928926	0.1829	0.18296	
Diesel litres to kgCO ₂ e	2.68697	2.512063885	2.51279	2.57082	
Gas transmission factor kgCO ₂ e (WTT)	N/A	0.03021	0.03021	0.03021	
Electricity transmission factor kgCO ₂ e	N/A	0.207074289	0.06817	0.00397	
Fuels – transmission factor kgCO ₂ e (litres)	N/A	0.61101	N/A	N/A	
General Refuse to landfill to kgCO ₂ e	N/A	N/A	N/A	N/A	
General Refuse to combustion to kgCO ₂ e	N/A	N/A	6.41061	4.68568	
General Closed/Open loop Recycling	N/A	N/A	6.41061	4.68568	
Biomass woodchip to kgCO ₂ e	N/A	N/A	N/A	N/A	

*An Excel version of this table is in Appendix A

Graph showing Scope 1 emissions between 2019 and 2024/25

This graph shows that there has been an overall reduction in emissions since the baseline year in 2019 and emissions have reduced by 56%. Each year there is a substantial decrease in the carbon emissions produced in Scope 1. This is largely due to the Council transitioning from diesel and unleaded petrol to Hydrotreated Vegetable Oil (HVO) to fuel their fleet of vehicles.

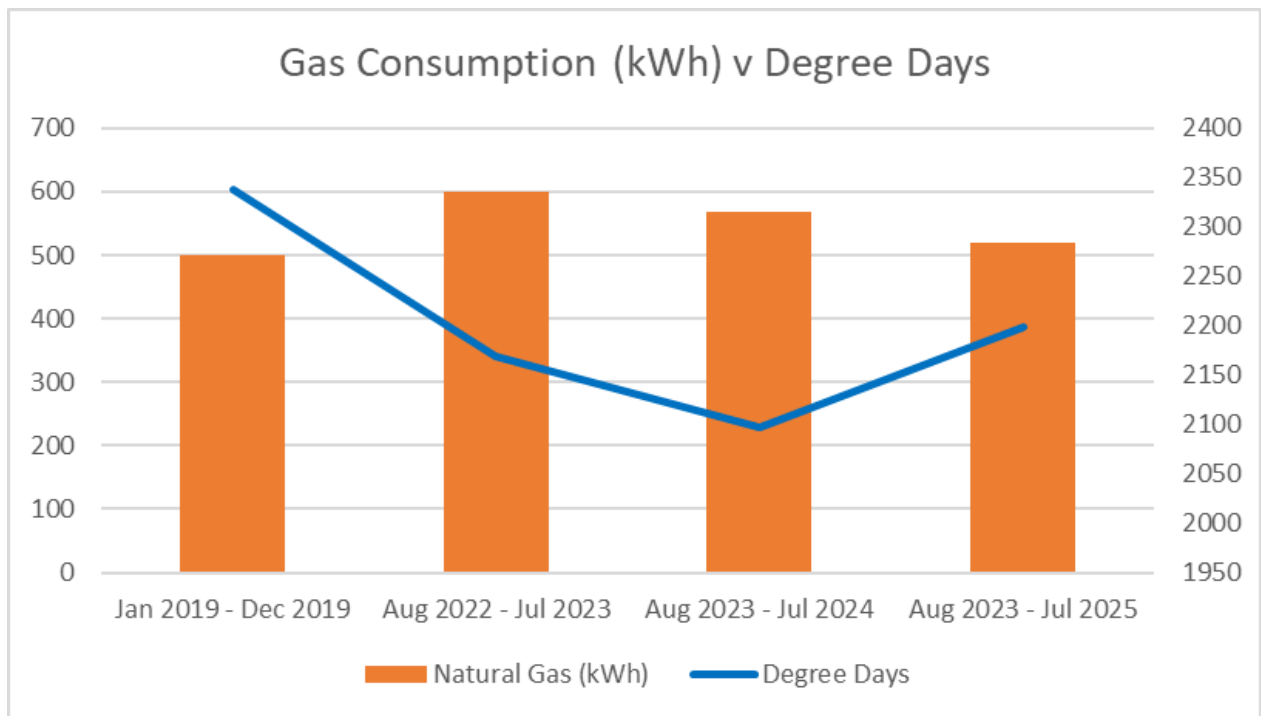
HVO produces significantly less CO₂ when combusted compared to both diesel and unleaded petrol which is why the Scope 1 emissions have decreased substantially.



Degree Day Comparison (gas use compared to weather) 2022/2023 and 2024/2025

Heating degree days are a measure of how much (in degrees), and for how long (in days), the outside air temperature was below a certain level. In the case for our analysis, we used a figure of 15.5°C. They are commonly used in calculations relating to the energy consumption required to heat buildings to put values of consumption into context and enable comparison between years.

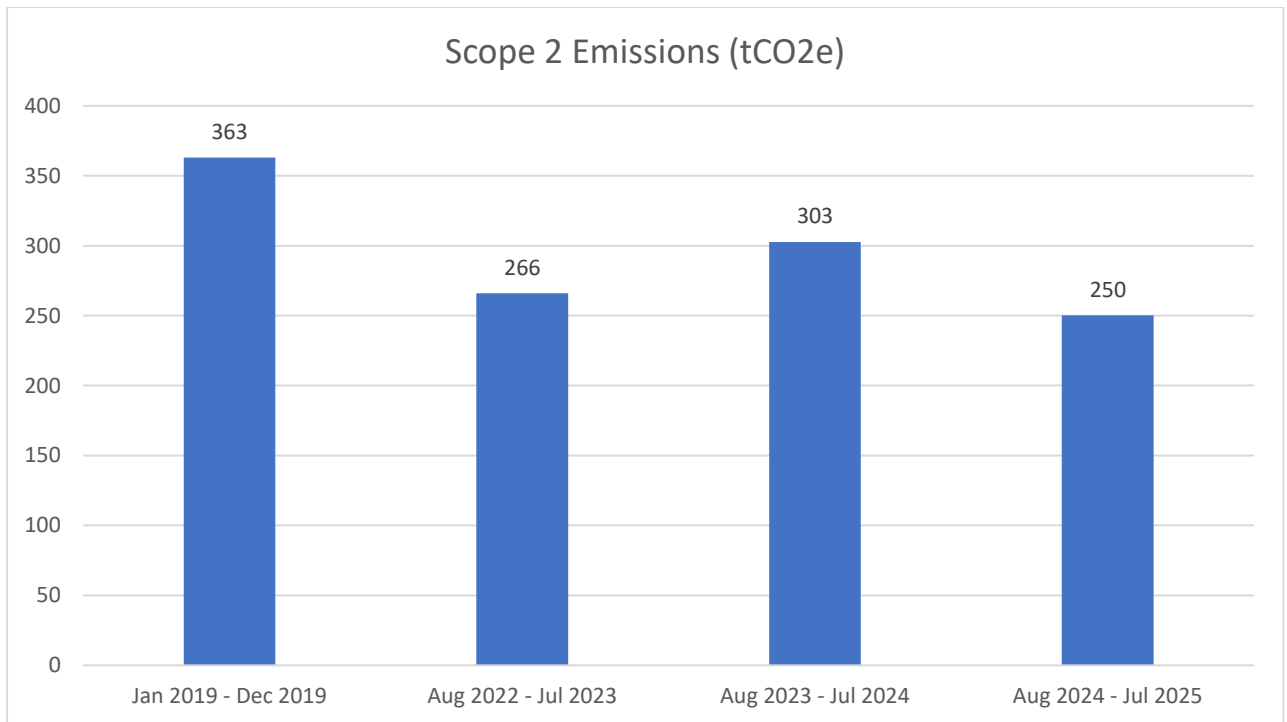
For example, in the Gedling area between Aug 2022 - Jul 2023 there were 2,169 heating degree days and between Aug 2023 - Jul 2024 there were 2,097 degree days. This implies that Aug 2022 - Jul 2023 was a colder period where the heating would have been turned on more frequently, and therefore more gas consumed over the period.

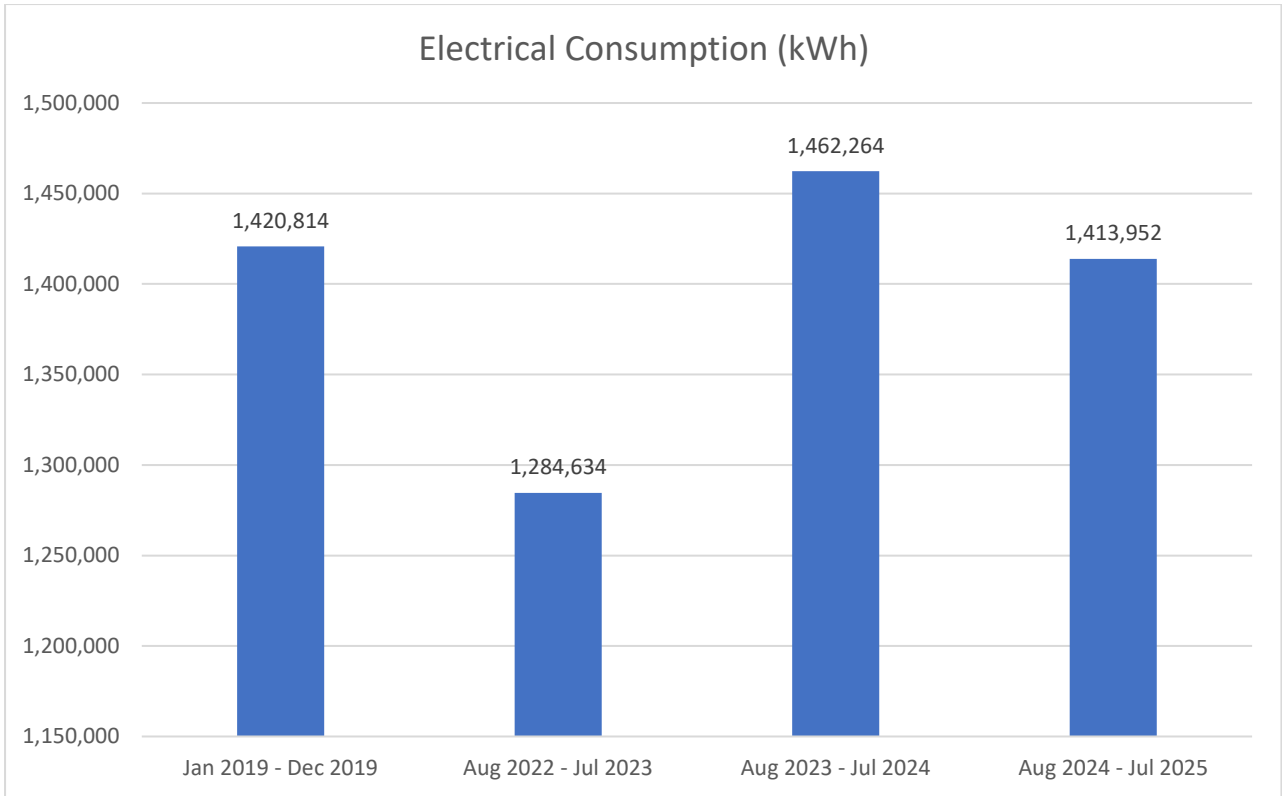


Graph showing Scope 2 emissions between 2019 and 2024/2025

The graphs below show that the carbon emission for electricity in 2024/2025 is the lowest, electricity consumed (kWh) is higher compared to 2022/2023.

This graph shows that there has been an overall decrease in emissions since 2019 of 31%. However, the carbon intensity and carbon emissions factor of national grid supplied electricity has decreased by 31%. The electricity usage (kWh) has only decreased by 0.5% so the reduction in carbon emission is entirely due to the grid decarbonising rather than for energy efficiency reasons.

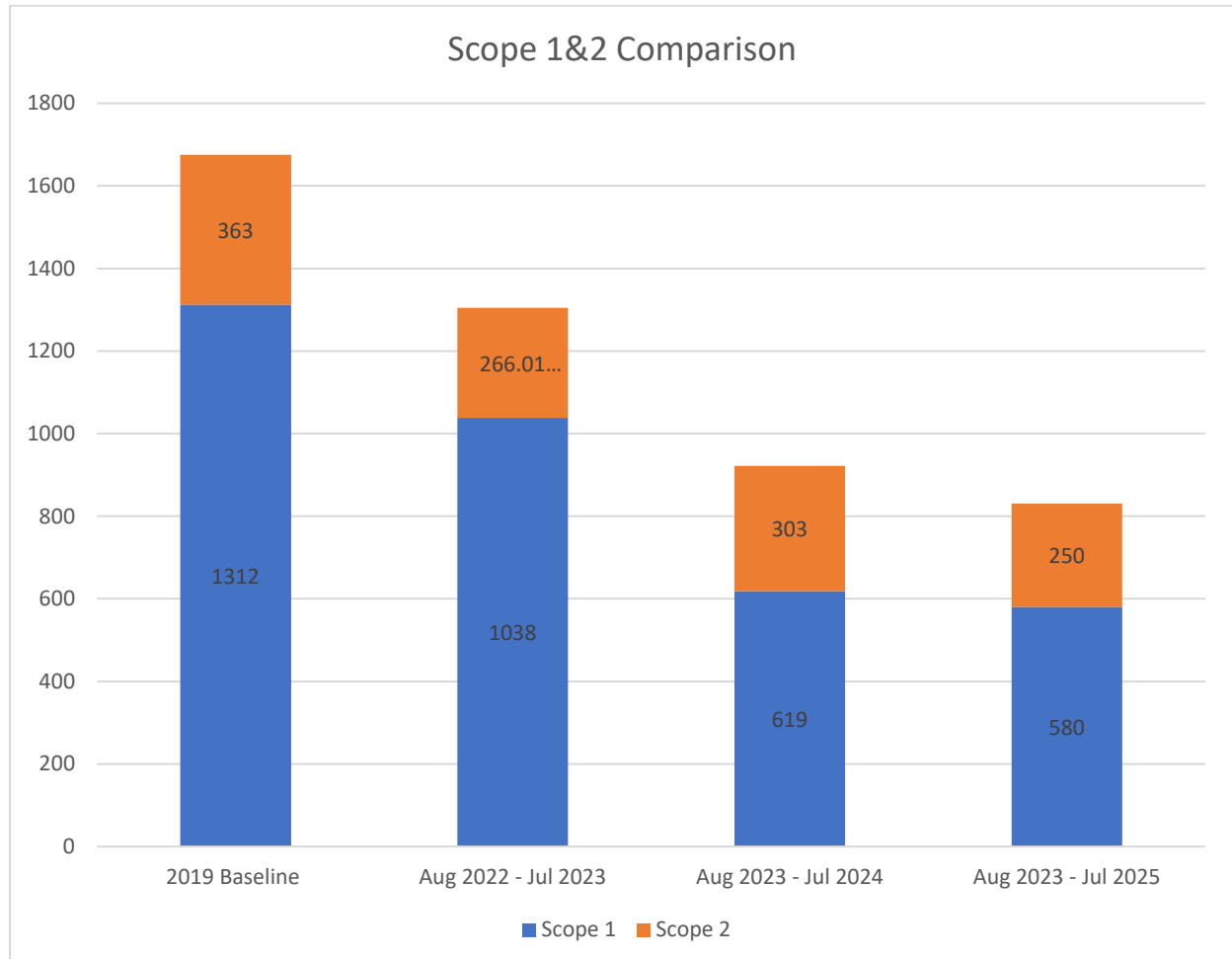




Scope 1 & 2 Comparison

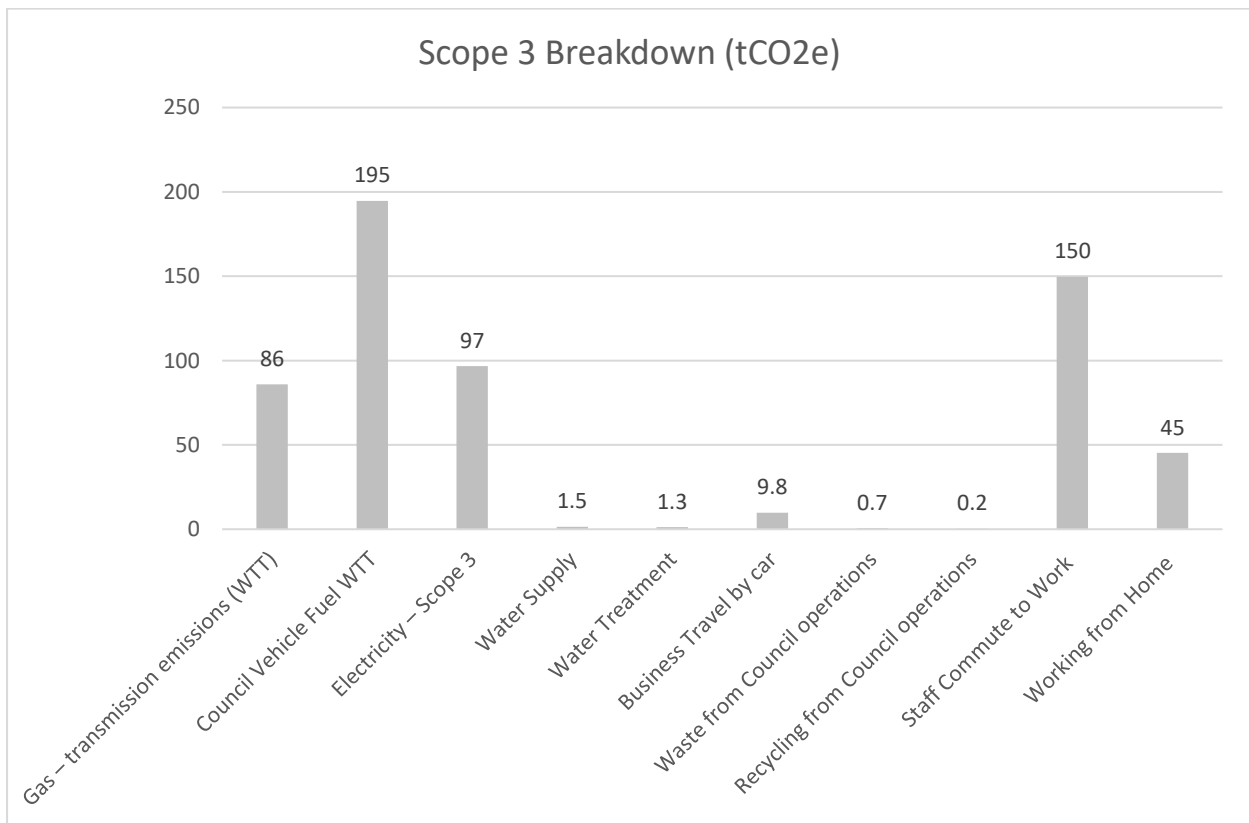
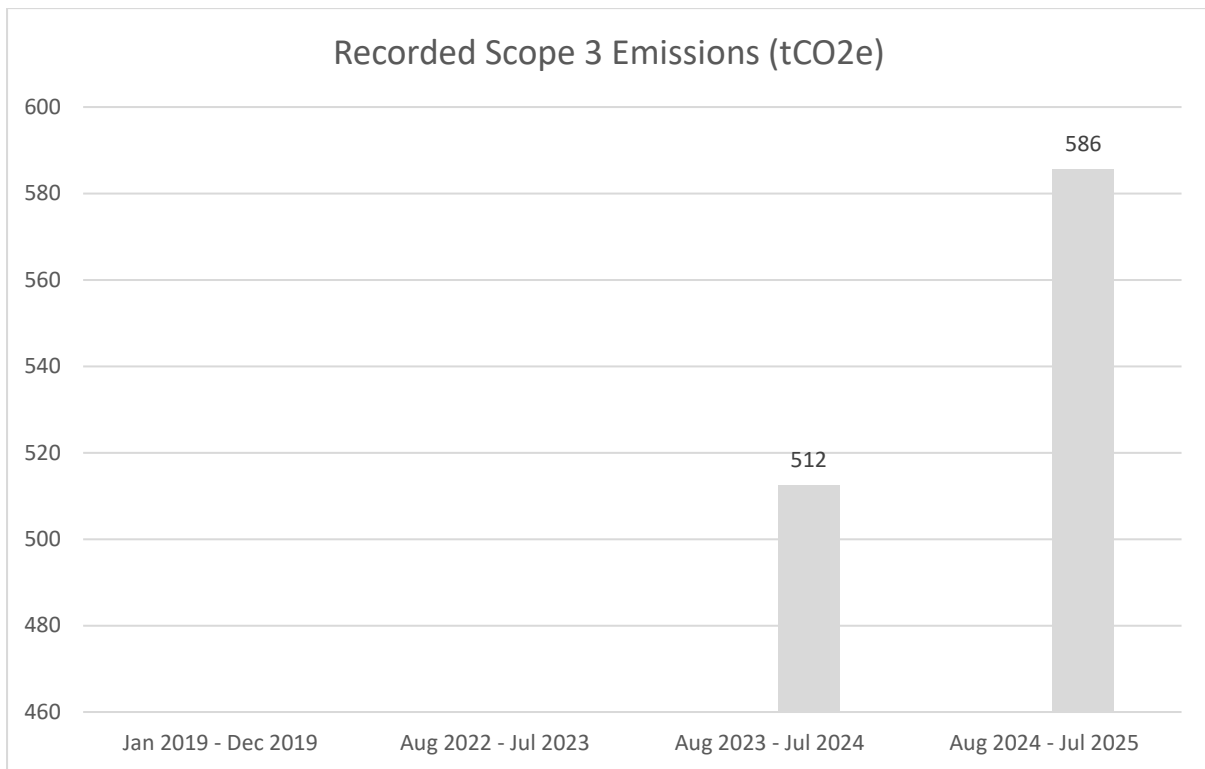
As of 2023/2024 the Council have included emissions associated with Scope 3 which will increase the overall carbon emissions compared to previous years. However, in a direct comparison of its Scope 1 & 2 between 2019 and 2024/2025 the carbon emissions have decreased by 50%.

As described previously this is due to the large decrease in Scope 1 carbon emissions, which was a result of the Council transitioning their fleet of vehicles from diesel and unleaded petrol to HVO.



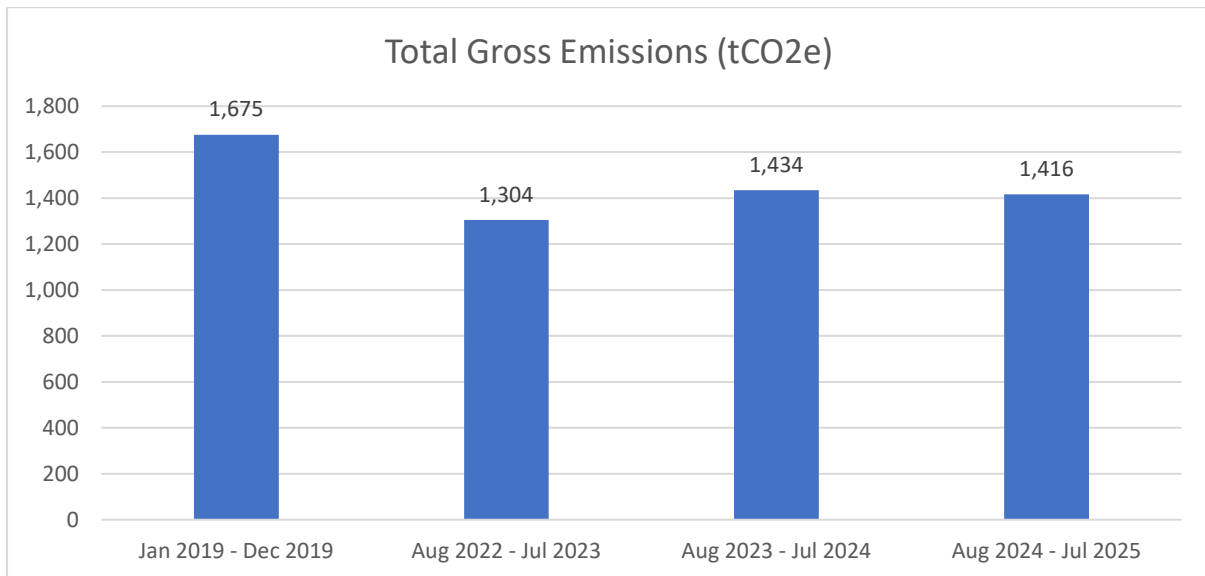
Graph showing Scope 3 emissions between 2019 and 2024/25

As reported, this is the second year that the Council has recorded their Scope 3 emissions. A new emission source included this year is staff commuting to work.



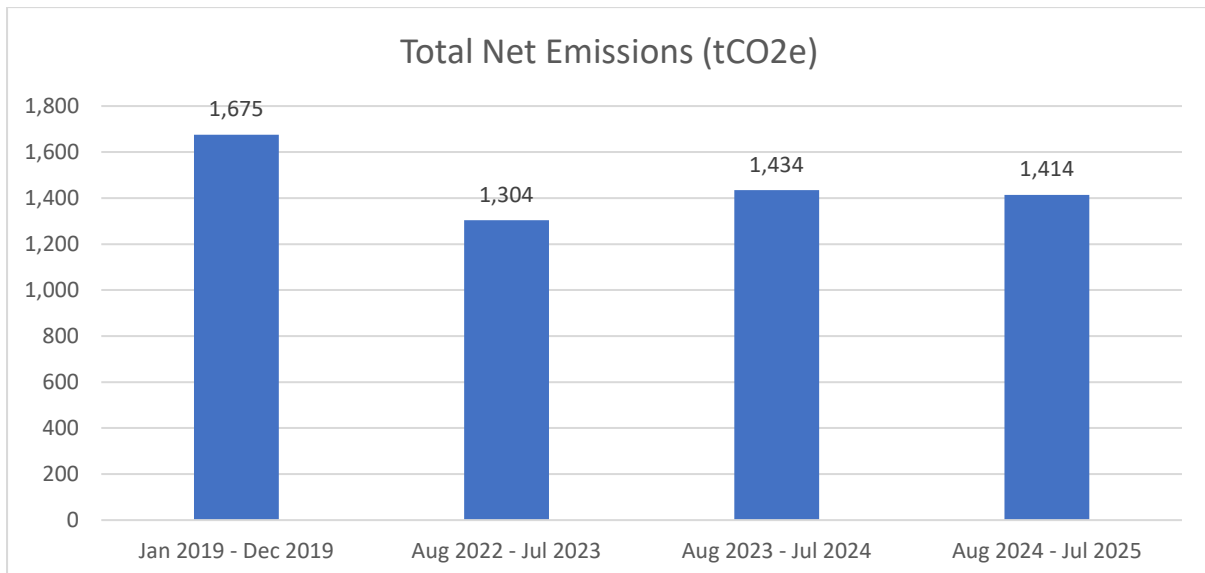
Graph showing Scope 1,2 & 3 gross emissions between 2019 and 2024/2025

This graph shows that there was an overall decrease of 15% across Scope 1, 2 & 3 emissions from 2019 to 2024/2025. As previously mentioned, the total emissions (tCO₂e) in 2024/2025 increased from 2022/2023 due to the addition of Scope 3. However, when compared to 2019, it has still decreased by 15 overall%.



Graph showing Scope 1,2 & 3 net emissions between 2019 and 2024/25

Data has been provided for the first time on electricity exported to the grid from PV. The exported emissions are counted as an offset which marginally reduce the net carbon emissions in 2024/2025.



3 Notes and Observations

3.1 Scope 1 and 2 Emissions

Scope 1

Gas Data

Estimates have been made on the following:

Arnold Leisure Centre (ALC) gas - August 2024 – Approximately a year's worth of charges came through altogether due to the meter not working for the previous year.

ALC gas – June & July 2025 – There are some notable estimated invoices, which means the actual consumption is not accurate.

Scope 2

Electricity Data

Estimates have been made on the following:

ALC electricity - December 2024 – no invoice received as yet.

3.2 Scope 3 Emissions

Initially, the Council has reported on Scope 1 & 2 emissions only and not Scope 3. However, since August 2023 – July 2024 the Council has reported on Scope 3.

Scope 3 emissions are separated into 15 different categories as shown in Appendix B which includes waste, staff travel and the purchased goods in the supply chain. Scope 3 emissions can amount to a higher proportion of total emissions than Scope 1 and 2 combined and represent the most significant opportunity to reduce carbon emissions and the impact to climate change. Understanding these risks through accurate and consistent measurement, evaluation and reporting should improve both resilience and reputation.

The Council have not fully reported their Scope 3 emissions and excluded a number of categories. This is due to limitations in recording and providing data.

Based on the data available in 2024/25 that the Council provided, the emissions included in this reporting for Scope 3 are as follows:

Scope 3 – Other Indirect Emissions
Gas – Well to Tank
Fuels – Well to Tank
Electricity – T&D and Well to Tank
Water Supply
Water Treatment
Business Travel by car
Waste from Council operations
Recycling from Council operations
Staff commuting to work
Employees working from home

Staff commuting to work is a new addition to 2024/2025 following a detailed survey with staff.

3.2.1 Gas – Well to Tank

Natural Gas Well to Tank (WTT) associated emissions are attributed to the carbon emissions associated with the extraction, refining and transportation of the raw fuel to the Council’s assets (Buildings) prior to combustion.

This element is calculated by multiplying the annual gas use in kWh by the WTT conversion factor of the corresponding year.

3.2.2 Fuels – Well to Tank

Fuel (HVO and Unleaded Petrol etc.) Well to Tank (WTT) associated emissions are attributed to the carbon emissions associated with the extraction, refining and transportation of the raw fuel to the Councils assets (Vehicles) prior to combustion.

3.2.3 Electricity – Well to Tank & Transmission and Distribution

Well to Tank - associated emissions are attributed to the carbon emissions associated with the extraction, refining and transportation of the raw fuel prior to combustion to generate electricity.

Transmission and Distribution – The emissions impact of the efficiency losses experienced with transferring the electricity from power plant to end user.

3.2.4 Business Travel Vehicle

The Council provided data recorded as distance travelled by individual vehicles. In 2024/2025 the data was provided as total distance travelled in the time period by each vehicle in miles.

Each vehicle was allocated a fuel type and engine size that was used to calculate carbon emissions associated with each vehicle.

It is recommended that the Council keep this method of recording data in a consistent format, so future comparisons are easily achieved, and any discrepancies can be identified when comparing years.

3.2.5 Waste from Council operations

Data for waste was not provided this 2024/2025 and it is assumed that it was not possible to collect. Therefore, the same volume of waste was used as the previous year.

Specific waste data is not available and an estimate for residual waste, recycling and glass recycling have been provided by the Council based on 'an estimate based on the number of bins on each site and the average weight in each bin'.

Residual waste has been categorised under 'Commercial and Industrial Waste' for carbon conversion purposes. This has been assessed assuming that 100% of the refuse waste goes to an Energy from Waste facility and none goes to landfill after conversations with the Council.

In the future it would be useful for the Council to separate the waste into categories of material and record the weight of the categories of waste separately if possible.

3.2.6 Employees working from home and commute to work

The Council provided data detailing staff working patterns which included days per week working at home and transport methods for commuting to work. Working from home (WFH) has associated carbon emissions from heating their homes and using office equipment.

WFH data was provided in the previous year, but this is the first year that data for staff commuting to work was provided.

3.2.7 Water

Data for water has been provided for selected sites, but the number of sites provided is significantly less than the previous year. The water volume and associated carbon emissions is therefore lower than previous years as the amount of sites included is less, rather than there being a notable reduction in the volume of water.

Consumption data has only been provided for the water supply and the Return to Sewer (water treatment) element. The return to sewer volume has been recalculated to be 95% of the water supply, which is an industry normal standard. However, this is not always the case if the premises uses water for other purposes such as irrigation, etc.

The cost of the supplied water was provided for selected sites rather than the volume of water. Based upon the average cost of a m³ of water from the Council's other assets, the total supply volume of water for selected sites was calculated. From this, the estimated water supply and water treatment volume and associated carbon emissions were calculated.

Emissions from water consumption are not included within the GHG Protocol, but emissions from wastewater are. Following the principle that as much data should be collected as possible, APSE Energy recommends that emissions from water should be included within the reporting for the Council as water consumption has associated carbon emissions and an environmental impact. Including water consumption helps to keep it on the environmental agenda and prioritise it with other categories by converting usage into a standardised unit of CO₂e.

3.3 Out of Scope

Out of Scope emissions are carbon emissions that are associated with the direct CO₂ impact and production that are caused by the combustion of biomass and biofuels such as Hydrotreated Vegetable Oil (HVO). They are not included within either Scope 1 or 2 as the fuel itself absorbs the equivalent amount of carbon during the growth phase as it releases during combustion and so is effectively net zero carbon.

For the purposes of tracking and monitoring the Council's out of scope emissions, the carbon production of burning the HVO has been recorded and included in Appendix A but has not been included or attributed to the Council's carbon emissions within the report.

3.4 Carbon Offsetting

The Council has provided data of two solar PV arrays that were recorded as generating electricity in 2024/2025. These PV arrays were labelled as site name:

- Large Workshop;
- Jubilee House.

Last year data was provided for 'Large Garage' but it was not included this year.

If 100% of the electricity is used on site, and not exported to the grid, then this is not counted as a carbon offset and should not contribute towards the net emissions as this is already taken into account from the building's electricity usage and this would be double counted.

There is a line on the Carbon Summary table under 'Renewable CO₂ avoided' which shows the carbon emissions that have been avoided by having PV generated electricity on site.

This is the first year that data has been provided for electricity generated by PV that is exported to the grid. The carbon savings are deducted from the gross emissions to provide the net emissions.

Further Notes and Observations

The bottom section of the Carbon Summary shows further information that was used in each reporting year such as a summary of annual energy usage (kWh), avoided CO₂ from renewables, degree days (see Glossary) in each year and a summary of conversion factors.

In this report, the degree day data used was sourced from Stark Degree Data for the region of the Midlands.

4 Conclusion and Recommendations

- Use carbon footprint data and Appendix A to develop a strategy to become net zero carbon. APSE Energy can provide a desktop investigation to provide a trajectory up to the zero carbon target year and give an indication of what measures could be taken and their potential capital cost and cost/carbon savings.
- Sense checks to all data to confirm its accuracy.
- Develop policies and processes for capturing data going forward and report on Scope 3 emissions.
- Develop policies to request emissions data from suppliers to gather Scope 3 data.
- Commission detailed energy audits of each site to identify what projects can be delivered to reduce carbon emissions and calculate the estimated cost can carbon savings.

5 Recommendations for Gathering Data Going Forward

5.1 Scope 1 and 2 Emissions

The Council should develop a procedure for gathering and storing data as it is made available. The benefit of this is that the carbon reporting process is streamlined and progress towards targets can be tracked.

5.2 Scope 3 Emissions

Scope 3 emissions can account for 70-80% of a council's total footprint (Carbon Trust), given the use of contractors for waste collection, construction, social services and other services. In 2024/2025 Gelding Borough Council's Scope 3 emissions were 41% of overall emissions.

Appendix B shows the 15 different categories of Scope 3 emissions and what data should be gathered to report on emissions in future years. Where applicable, the Council should develop policies/procedures to gather the data from third parties. This should be incorporated into the procurement process and contracts with suppliers.

It is discretionary for an organisation to report on Scope 3 emissions. It should be explained and documented in subsequent carbon reports if the Council is unable to obtain data for any of the items below as it is deemed financially impractical or not significant. The reporting principles should be based on:

- Relevance;
- Completeness;
- Consistency;
- Transparency;
- Accuracy.

Emissions data that should be improved in subsequent years includes waste. Policies should be put in place to start recording waste data. This could be through contractual changes, i.e. waste contractor weighing and recording waste type, or the Council can measure its own waste. There are tracking sheets from WRAP to monitor waste streams, and these could be used in the short term until the waste contractor can record it.

Purchased goods and services could also be included under Scope 3 as this will represent a high level of emissions down the supply chain. However, obtaining this data from third parties may prove difficult and the Council should assess what relevant goods and services could be recorded in subsequent years.

Note

Local authorities should undertake their own due diligence where appropriate rather than relying on this report. This is a feasibility study and detailed design is required prior to undertaking any works.

APSE does not provide financial or investment advice and is not registered with the Financial Conduct Authority.

The options and recommendations contained within this report provide a reasonable forecast for the pre-tender capital cost and cost/carbon savings for selected projects. Further detailed design is required to determine more cost certainty and to ensure that appropriate systems are installed that optimise energy usage and provide a healthy working environment.

Products referred to in this report do not constitute a recommendation. They are for example purposes only and alternatives are available unless stated.

6. Glossary

Term	Definition
BMS	Building Management System – Automated control for building services.
Carbon dioxide equivalent (CO ₂ e)	The carbon dioxide equivalent (CO ₂ e) allows the different greenhouse gases to be compared on a like-for-like basis relative to one unit of CO ₂ and includes the six greenhouse gases with the greatest global warming potential (GWP).
Carbon footprint	A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product. A carbon footprint is measured in tonnes of carbon dioxide equivalent (tCO ₂ e).
Council Vehicles	Vehicles that are owned or controlled by the Council. This does not include employee-owned vehicles that are used for business purposes.
Degree Day	A heating degree day (HDD) is a measurement designed to quantify the demand for energy needed to heat a building. It is the number of degrees that a day's average temperature is below a baseline temperature, which is the temperature below which buildings need to be heated.
Electricity	Electricity used at sites owned/controlled by the Council. This is reported as a Scope 2, indirect emission. The conversion factors used are for the electricity supplied by the grid that the Council purchase - they do not include the emissions associated with the transmission and distribution of electricity.
Employee Vehicles	Travel for business purposes in assets not owned or directly operated by the Council. This includes mileage for business purposes in cars owned by employees, public transport, hire cars etc.
[Natural] Gas	Primary fuel sources combusted at a site or in an asset owned or controlled by the Council.
MPAN & MPR	The MPAN (Meter Point Administration Number) and MPRN (Meter Point Reference Number) are unique numbers assigned to the electricity and gas supplies. This information has been provided as a reference and can be used to identify each meter.
Solar PV	Solar Photovoltaic panels to generate renewable electricity from the sun.
Transmission and Distribution	Transmission and distribution (T&D) factors are used to report the Scope 3 emissions associated with grid losses (the energy loss that occurs in getting the electricity from the power plant to the premises).
Wastewater	Water returned into the sewage system through mains drains.
Water Supply	Water delivered through the mains supply network.

Appendix A – Carbon Footprint Calculations

The above appendix is provided separately as a spreadsheet.

Appendix B – Data that should be gathered to report on Scope 3 emissions

The reporting of Scope 3 emissions is discretionary.

Item	Category	Details Required
1	Purchased goods and services	<p>This category includes all upstream (i.e. cradle-to-gate) emissions from the production of products purchased or acquired by the Council in the reporting year. Products include both goods (tangible products) and services (intangible products).</p> <p>This category includes emissions from all purchased goods and services not otherwise included in the other categories of upstream scope 3 emissions (i.e. category 2 through category 8 below). Cradle-to-gate emissions include all emissions that occur in the life cycle of purchased products, up to the point of receipt by the Council. Cradle-to-gate emissions may include:</p> <ul style="list-style-type: none"> • Extraction of raw materials • Agricultural activities • Manufacturing, production, and processing • Generation of electricity consumed by upstream activities • Disposal/treatment of waste generated by upstream activities • Land use and land-use change • Transportation of materials and products between suppliers • Any other activities prior to acquisition by the reporting company <p>Relevant purchases to the Council may include capital goods, such as office supplies, office furniture, computers, telephones, travel services, IT support, outsourced administrative functions, consulting services, janitorial, landscaping services, maintenance, repairs and operations.</p> <p>For accurate carbon reporting emissions, the Council should request cradle-to-gate emission factors for materials used by suppliers to produce purchased goods such as Environmental Product Declarations (EPDs). It is likely that many suppliers will not be able to provide all the emission data.</p> <p>If an EPD cannot be provided, supplementary information required includes the volume of product (kg) and the carbon emission factor (kg CO₂e).</p>

		A policy should be developed so that suppliers in the supply chain are required to provide this data as part of the contract, where the volume of goods is noteworthy.
2	Capital goods	<p>Capital goods are final products that have an extended life and are used by the Council to manufacture a product, provide a service, or sell, store, and deliver merchandise. Capital goods are treated as fixed assets or as plant, property, and equipment (PP&E). Examples of capital goods include equipment, machinery, buildings, facilities, and vehicles.</p> <p>The required information is the same as Category 1 above.</p> <p>A policy should be developed so that suppliers in the supply chain are required to provide this data as part of the contract.</p>
3	Fuel- and energy related activities (not included in Scope 1 or Scope 2)	Transmission and distribution (T&D) losses have been included and calculated from the data provided in Scope 2.
4	Upstream transportation and distribution	<p>Category 4 includes emissions from:</p> <ul style="list-style-type: none"> • Transportation and distribution of products purchased in the reporting year, between suppliers and its own operations in vehicles not owned or operated by the Council. • Third-party transportation and distribution services purchased by the Council in the reporting year (either directly or through an intermediary), including inbound logistics, outbound logistics (e.g. of sold products), and third-party transportation and distribution between the Council's own facilities. <p>The Council requires data on:</p> <ul style="list-style-type: none"> • Quantities of fuel (e.g., diesel, petrol, jet fuel, biofuels) consumed • Amount spent on fuels • Distance travelled • Vehicle type <p>This may include managed assets - Vehicles that are used by the Council but are not owned by the organisation and generally do not appear on the organisation's balance sheet, for example, maintenance contractor vehicles, outsourced refuse and recycling trucks, road sweepers, grounds maintenance mowers etc.</p> <p>A policy should be developed so that suppliers using their own vehicles are required to provide this data as part of the contract.</p>

5	Waste generated in operations	<p>This includes emissions from third-party disposal and treatment of waste generated in the Councils owned or controlled operations in the reporting year. This category includes emissions from disposal of both solid waste and wastewater.</p> <p>The Council should request volume and emissions data from the waste treatment company applicable to its own waste stream. If this cannot be provided, the emissions can be calculated by requesting the volume of waste, type and disposal method:</p> <p>Example of data required:</p> <p>Total weight (kg) of waste type and disposal method e.g.</p> <ul style="list-style-type: none"> • 5,000kg municipal waste to landfill • 500kg organic garden waste to composting • 1,000kg metal recycled • 1,000kg plastic recycled • 1,000kg paper recycled <p>Data is required for the volume of supply and wastewater in cubic metres (m³) from water bills.</p> <p>Local authorities have an important role in waste prevention and sustainable waste management through awareness-raising campaigns, providing separate collection for recycling and food waste, and implementing waste-to-energy schemes. It is therefore voluntary on whether the Council choose to include the emissions from waste associated with the whole borough, or just the Council's own operation.</p>
6	Business travel	<p>Travel for assets not owned or directly operated by the Council. This includes mileage for business purposes in cars owned by employees, public transport, hire cars etc.</p> <p>Require details for:</p> <p><u>Vehicle</u> Fuel type, size of vehicle and distance for:</p> <ul style="list-style-type: none"> • Car • Motorbike • Taxis • Bus • Rail <p><u>Flights</u></p> <ul style="list-style-type: none"> • Airport travelled to/from • Number of passengers • Class type • Distance <p><u>Ferry</u></p>

		<ul style="list-style-type: none"> • Foot or car passenger • Distance
7	Employee commuting	<p>This category includes emissions from the transportation of employees between their homes and their worksites.</p> <p>Emissions from employee commuting may arise from:</p> <ul style="list-style-type: none"> • Car • Bus • Rail • Other modes of transportation <p>Staff would be required to provide method of transport and distance travelled. It may be difficult and time consuming to collect accurate data.</p>
8	Upstream leased assets	<p>This category is applicable from the operation of assets that are leased by the Council.</p> <p>If the Council procures the energy then this should be considered as Scope 1 and 2.</p> <p>If the landlord is responsible for the Scope 1 and 2 emissions, the Council should include the reporting under Scope 3. An example may include an office that the Council lease from a private landlord. All energy bills may be included as part of the lease and the energy contract is under the name of the landlord. The Council should therefore request the energy data from the landlord and include this under Scope 3.</p> <p>Data required include the Scope 1 and 2 data from the leased asset.</p>
9	Downstream transportation and distribution	<p>This category includes emissions that occur in the reporting year from transportation and distribution of sold products in vehicles and facilities not owned or controlled by the Council in the reporting year.</p> <p>It is assumed that this category is not applicable to the Council as it does not manufacture and sell products.</p>
10	Processing of sold products	It is assumed that this category is not applicable to the Council as it does not manufacture and sell products.
11	Use of sold products	It is assumed that this category is not applicable to the Council as it does not manufacture and sell products.
12	End-of-life treatment of sold products	It is assumed that this category is not applicable to the Council as it does not manufacture and sell products.

13	Downstream leased assets	<p>This category is applicable where the Council is the landlord to a lessee.</p> <p>If the Council procures the energy on behalf of a lessee then this should be considered as Scope 1 and 2. An example of this is where the Council may lease a premises to a lessee and include all energy costs as part of the lease. The energy contract is under the name of the Council and is therefore reported under Scope 1 and 2.</p> <p>If the lessee is responsible for the Scope 1 and 2 emissions, the council should include the reporting under Scope 3. An example of this is a shop that the Council own and the occupant pays for the energy bills and the contract is under their name. The Council should request the energy data from the shop occupier and report this under Scope 3.</p> <p>Data required include the Scope 1 and 2 data from the leased asset.</p>
14	Franchises	<p>It is assumed that this category is not applicable to the Council as it does not operate any franchises.</p>
15	Investments	<p>This category includes scope 3 emissions associated with the Council's investments in the reporting year, not already included in scope 1 or scope 2. This category is applicable to investors (i.e. organisations that make an investment with the objective of making a profit) and organisations that provide financial services. This category also applies to investors that are not profit driven (e.g. multilateral development banks). Investments are categorised as a downstream scope 3 category because providing capital or financing is a service provided by the organisation.</p> <p>Category 15 is designed primarily for private financial institutions (e.g., commercial banks), but is also relevant to public financial institutions (e.g., multilateral development banks, export credit agencies) and other entities with investments not included in scope 1 and scope 2.</p> <p>The Councils scope 3 emissions from investments are the scope 1 and scope 2 emissions of investees.</p> <p>For purposes of greenhouse gas accounting, this standard divides financial investments into four types:</p> <ul style="list-style-type: none"> • Equity investments • Debt investments • Project finance • Managed investments and client services <p>An example of the information required is the Scope 1 and 2 emissions from the bank where an investment is in place. This is based on the Council's proportional share of investment in the investee. If the Council has £1million invested in the bank and the</p>

		<p>banks total investments amount to £100million, the Council should report on 1% of the banks Scope 1 and 2 emissions.</p> <p>It is assumed that this information will be difficult to collate from third parties and that the total emissions will be proportionally small compared to other emission sources and these emissions could be excluded from the reporting.</p>
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