

Shred Station Limited

Greenhouse Gas Assessment, CY2025

On behalf of Climate Impact Partners

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GENERAL NOTES

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Author:	Stella Ferguson	**Technical reviewer:**	Zack Clarke
Signature:	S Ferguson	Signature:	Z Clarke
Date:	17/11/2026	Date:	17/11/2026
Quality reviewer:	Maria Wasley		
Signature:	M Wasley		
Date:	19/11/2026		

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EXECUTIVE SUMMARY

This greenhouse gas (GHG) assessment has been prepared by Nature Positive Ltd on behalf of Climate Impact Partners to estimate GHG emissions associated with the operations of Shred Station Limited during the reporting period 1st January 2025 to 31st December 2025 in relation to CN Protocol 2025.

Shred Station Limited (Shred Station) provides secure confidential waste destruction and disposal services. They employ 195 full-time equivalent (FTE) employees at their three sites in the UK across Norwich, Harlow and Manchester, with a combined floor area of 48,000 ft^2.

GHG emissions summary

Shred Station's total GHG emissions assessed for 2025 were 23,361 tCO_2e using the market-based method and 23,285 tCO_2e using the location-based method[1].

As Shred Station has expanded to a full-scope GHG assessment, the reporting boundary now captures a broader range of value chain emissions. As a result, the increase in reported Scope 3 emissions largely reflects a more comprehensive accounting of emissions sources, rather than a like-for-like increase in underlying business activity.

Absolute GHG emissions can vary over time and often correspond to the expansion or contraction of an organisation. It is therefore useful to use reporting metrics that take these effects into account to establish emissions intensity. Common emissions intensity metrics include tCO_2e per £m turnover, employees, output, or floor area. Total emissions and Shred Station's chosen intensity metrics are presented in Table ES1.

Table ES1: GHG Summary metrics

Metric	GHG emissions (tCO_2e)	
	Market-based	Location-based
Total GHG emissions	23,361	23,285
GHG emissions per FTE (195)	120	119
GHG emissions per floor area (48,000 ft^2)	0.5	0.5

GHG emissions by scope are presented in Figure ES1. Scope 3 emissions (other indirect emissions) represent the majority of emissions at 83% (it is typically found that scope 3 emissions account for the majority of an organisation's carbon footprint).

Scope 3 emissions were predominantly from downstream processing of sold products (64%). Scope 1 emissions from company owned vehicles and natural gas accounted for 16% of total emissions. Scope 2 emissions from electricity consumption accounted for the remaining 1%. Further details of Shred Station's GHG emissions can be found in Section 5.

[1] For an explanation of market-based and location-based emissions, see section 2.6.2.

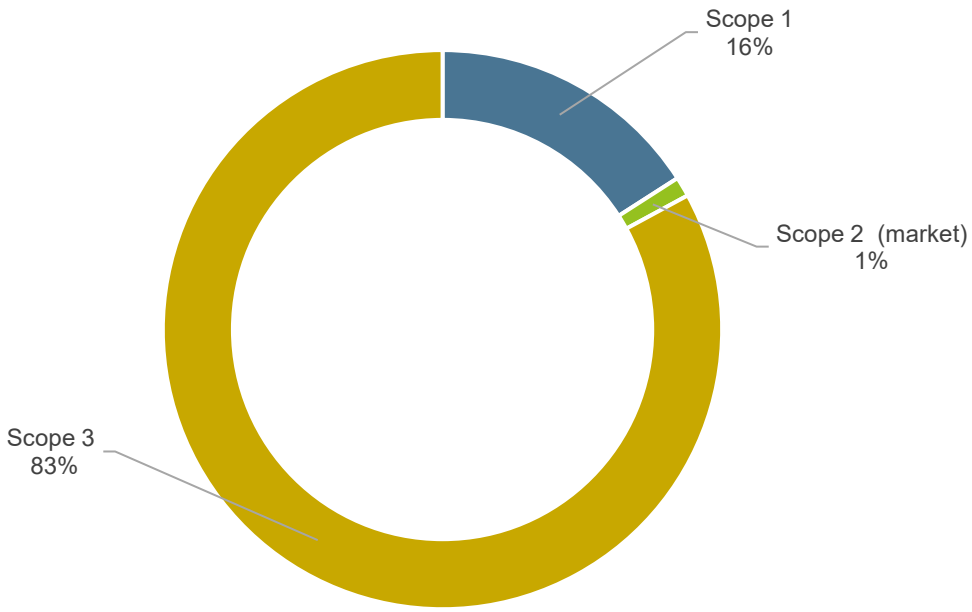


Figure ES1: Market-based GHG emissions by scope (tCO_2e)

Science-based targets summary

Science-aligned targets are emissions reductions targets that if met, are reported to limit global warming to 1.5°C above pre-industrial levels - in line with the goals of the Paris Agreement. The Science Based Targets initiative (SBTi) is a governing body that has published a methodology that organisations can follow to set these targets.

Shred Station has elected to set a near-term science-aligned target using the SME pathway.

From a 2025 calendar year base year, Shred Station will:

- Reduce scope 1 emissions by 42% in absolute terms **by 2035**
- Reduce scope 2 emissions by 67% via procurement of renewable energy contracts **by 2035.**
- Continue to measure and reduce scope 3 emissions.

These targets will be valid from 1st January 2025 (the target year can be no more than ten years from the pledge year) and are no longer valid should the company meet recalculation criteria.

In order to initiate emissions reductions and achieve these targets, it is advisable that Shred Station establish a carbon management plan (The Plan). The Plan will guide Shred Station through a decarbonisation pathway and lay out a step-by-step process to reduce emissions. Annual emissions will be reported against these targets year on year to track progress.

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1 INTRODUCTION

This GHG assessment has been prepared by Nature Positive, on behalf of Climate Impact Partners (CIP), to estimate GHG emissions associated with the operations of Shred Station Limited (Shred Station) during the reporting period 1 January 2025 to 31 December 2025.

The report includes the following sections:

- Section 1.3: Context, reporting standards and emission scopes.
- Section 3: Methodology
- Section 4: Operational boundary, those categories assessed or not applicable and data quality.
- Section 5: GHG emissions summary
- Section 6: Comparison of GHG emissions with previous year.
- Section 7: Science-aligned target

1.1 Scope of work

This is a full GHG assessment, to assess scopes 1, 2 and all relevant scope 3 categories. Shred Station identified relevant Scope 3 categories, as well as those categories not applicable to their operations (refer to Section 4).

The GHG assessment will be used to prepare the CarbonNeutral® certification summary for the requirements set out by The CarbonNeutral Protocol 2025.

Science-aligned targets have also been prepared for Shred Station. Science-aligned targets are emissions reductions targets that if met, are considered to be sufficient to limit global warming to 1.5°C. They follow the published methodology of the Science Based Targets initiative (SBTi), however, do not require the organisation to formally apply to SBTi.

1.2 CarbonNeutral® Company

Table 1 and Table 2 displays the CarbonNeutral® certification scope and emissions to be offset for Shred Station. The CarbonNeutral Protocol developed by CIP is an additional layer on top of the GHG Protocol and describes the requirements for achieving specific CarbonNeutral® compliant certifications (i.e., CarbonNeutral® 'Company', 'Fleet', 'Product', 'Event' etc.).

The CarbonNeutral Protocol requires the inclusion of all scopes 1, 2 and 3 emissions for certification, as well as the inclusion of certain scope 3 emissions for offsetting (such as waste and business travel) depending on the certification targeted.

The CarbonNeutral Protocol uses a market-based method that reflects proportional emissions from specific electricity tariffs that consumers select in the market. As per The CarbonNeutral Protocol, zero emissions for scope 2 electricity may only be awarded when double-counting is avoided.

From 2024, organisations applying for CarbonNeutral® certification though CIP are required to set a science-aligned target (unless they meet the criteria for the grace period).

Table 1: CarbonNeutral® Company certification emissions summary

Organisation:			**Shred Station Limited**		
CarbonNeutral® certification:			**CarbonNeutral® Company 2025**		
Reporting period:			**1 January 2025 – 31 December 2025**		
Consolidation approach:			**Operational control**		
Scope	**Emissions source category**		**Offset status**	**Assessed**	**tCO_2e**
1	Direct emissions from owned, leased or directly controlled stationary sources that use fossil fuels or emit fugitive gases		Required	Assessed	2.9
	Direct emissions from owned, leased or directly controlled mobile sources		Required	Assessed	3,710
2	Emissions from generation of purchased energy	Location-based	Required	Assessed	190
		Market-based			265
3 (Up-stream)	Purchased goods and services		Recommended	Assessed	1.9
	Capital goods		Recommended	Assessed	681
	Fuel and energy related activities	Upstream emissions from purchased fuels	Recommended	Assessed	883
		Upstream emissions from purchased electricity	Recommended	Assessed	53
		Transmission and distribution (T&D) losses	Required	Assessed	20
	Upstream transportation and distribution	Outbound courier deliveries of packages	Recommended	Assessed	5.5
		Third-party transportation and storage of inbound production-related goods, including internal movement of production-related goods	Recommended	Not applicable	-
		Third-party transportation and storage of sold products to first customer	Required	Not applicable	-
	Waste generated in operations	Wastewater	Recommended	Assessed	0.2
		Other waste	Required	Assessed	0.1
	Business travel	All transport by air, public transport, rented/leased vehicle,	Required	Assessed	29
		Emissions from hotel accommodation	Recommended	Assessed	57
	Employee commuting	Employee transport between home and places of work	Recommended	Assessed	199
		Emissions arising from employee homeworking and remote work	Required	Assessed	3.4

Organisation:			**Shred Station Limited**		
CarbonNeutral® certification:			**CarbonNeutral® Company 2025**		
Reporting period:			**1 January 2025 – 31 December 2025**		
Consolidation approach:			**Operational control**		
Scope	**Emissions source category**		**Offset status**	**Assessed**	**tCO_2e**
	Upstream leased assets		Recommended	Not applicable	-
3 (Downstream)	Downstream transportation and distribution	Third-party transportation and storage of sold products to first customer, not already included in upstream	Required	Not applicable	-
		Third-party transportation and storage of sold products beyond first customer, including retail and storage	Recommended	Not applicable	-
	Processing of sold products		Recommended	Assessed	14,943
	Use of sold products		Recommended	Not applicable	-
	End-of-life treatment of sold products		Recommended	Assessed	2,506
	Downstream leased assets		Recommended	Not applicable	-
	Franchises		Recommended	Not applicable	-
	Investments		Recommended	Not applicable	-
Total: location-based scope 2				✓	**23,285**
Total: market-based scope 2				✓	**23,361**
Total for offset (tCO_2e)			**Required (for offsetting)**		**4,031**
			Recommended		**19,330**
			All company emissions		**23,361**

Required refers to those emissions required to be offset to meet the requirements of CarbonNeutral® Certification.
Recommended refers to other additional emissions associated with the organisation's operations, that fall outside the requirements of CarbonNeutral® Certification for offsetting.
Not applicable (NA) refers to those emissions that Shred Station has identified as not applicable to their operations, including categories 3-8, 3-9, 3-11 and 3-13 through to 3-15.

1.3 CarbonNeutral® Fleet

Table 2 displays the CarbonNeutral® certification scope and emissions to be offset. Shred Station advised that electric company owned vehicles are charged 100% on-site. Given it is not possible to differentiate kWh attributed to company owned vehicle charging, electricity emissions are included as part of total premises electricity consumption (Table 1) and are included as part of the CarbonNeutral® Company certification.

Table 2: CarbonNeutral® Company Fleet certification summary

Organisation:	**Shred Station Limited**		
CarbonNeutral® certification:	**CarbonNeutral® Fleet**		
Reporting period:	**1 January 2025 to 31 December 2025**		
Consolidation approach:	**Operational control**		
Emissions Source Category	**Required or Recommende**	**Included?**	**tCO_2e**
All direct emissions from mobile sources used to deliver the activity	Required	✓	3,710
Emissions from consumption of purchased electricity (including transmission losses) and/or steam used to deliver the activity	Required	✓	Included in premises
Overall compliance		✓	**3,710**
Total for offset (tCO_2e)			**0***

*Emissions offset as part of CarbonNeutral® Company assessment.

2 CONTEXT

2.1 Why measure greenhouse gas emissions?

Greenhouse gas (GHG) emissions assessments quantify the climate impact, direct and indirect, from a business' or organisation's activities, or for specific projects, events, products or services. Colloquially known as a carbon footprint, a GHG assessment is a key tool for monitoring and reducing an organisation's climate change impact as it allows carbon hotspots to be identified, reduction targets set, and action plans formulated.

GHG assessment results can also allow organisations to be transparent about their climate impacts through reporting results to customers, shareholders, employees, and other stakeholders. Regular – at a minimum, annual – assessments allow organisations to track their decarbonisation progress over time, and to contribute to broader sustainability or corporate social responsibility (CSR) reporting.

2.2 The Kyoto Protocol GHGs

GHG assessments quantify the Kyoto Protocol greenhouse gases, as applicable, and are measured in terms of tonnes carbon dioxide (CO_2) equivalence, or tCO_2e, where equivalence means having the same warming effect ('global warming potential', or GWP) as CO_2, typically measured over 100 years (see Section 2.3).

The six original Kyoto Protocol gas groups are CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF_6) and perfluorocarbons (PFCs); nitrogen trifluoride (NF_3), a chemical released in certain high-tech industries, was added in 2013. The global warming potential (GWP) of each is presented in Table 3.

Table 3: Kyoto Protocol GHGs and their global warming potential (GWP)

Greenhouse gas/group	Chemical formula	GWP (CO_2e)
Carbon dioxide	CO_2	1
Methane	CH_4	28
Nitrous oxide	N_2O	265
Hydrofluorocarbons	HFCs	Depends on specific gas
Sulphur hexafluoride	SF_6	23,500
Perfluorocarbons	PFCs	Depends on specific gas
Nitrogen Trifluoride	NF_3	16,100

The global warming potentials above are aligned with the IPCC's Fifth Assessment Report (AR5) as per DESNZ methodology. Some UK emission factors – those for hotel stays, bioenergy, WTT bioenergy and material – are still based on the previous IPCC report, AR4. In most cases this will have minimal impact.

2.3 Methane's GWP

Methane (CH_4) is the most abundant GHG after CO_2. It has a higher heat-trapping potential than CO_2 but remains in the atmosphere for a shorter period (typically ~12 years). This means that its relative GWP depends on the reporting timeframe, which can lead to ambiguity. This is because when reporting GHG emissions, either the 20- or 100-year timeframe multiplier for methane can be used; use of the 100-year timeframe – as stipulated by the Greenhouse Gas Protocol Corporate Standard – can significantly underestimate the short-term warming impact of the emissions.

There is also evidence that methane leaks from parts of the oil and gas industry could be significantly higher than some official estimates (Alvarez *et al*., 2018), which will increase short-term atmospheric methane emissions. Again, this is not reflected in current official emissions factors.

The practical upshot is that the climate mitigation potential for any reductions in natural gas (and to some extent all fossil fuel) consumption may be considerably higher than reflected in figures derived using the most commonly used (100-year) CO_2e emissions factors.

We recommend that organisations with significant emissions from these sources take this into account when assessing their decarbonisation priorities.

2.4 Calculating emissions

GHG assessments require two types of data: activity data and emission factors.

Activity data represents a level of activity (such as kilowatt hours of electricity consumed, or litres of fuel combusted) contributing to the organisation's climate impact. Activity data can be primary or secondary; this is discussed further in section 2.9 below. Activity data is typically supplied by the reporting organisation.

The activity data is then used to quantify GHG emissions by applying the most relevant emission factors. An emission factor is a representative value that relates the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. Factors are typically available from government publications, independent agencies, and scientific research journals; however, the quality and accuracy of factors can vary. Factors can differ depending on the research body and/or underlying methodologies applied. It is therefore good practice to apply factors from reputable and reliable sources, such as the UK government or the United States EPA.

2.5 Reporting standards

GHG assessments are typically carried out in accordance with one of two recognised standards for accounting and reporting corporate GHG emissions. The best-known is the *Greenhouse Gas Protocol Corporate Accounting and Reporting Standard* (WRI and WBCSD, 2004), developed in a partnership between the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI).

The International Organization for Standardization (ISO) has also produced the ISO14064[2] series, detailing specification and guidance for the organisation and project levels, as well as for the validation and verification of emissions.

2.6 Emissions scopes

Most standards separate GHG emission sources into three categories, known as scopes. The GHG Protocol provides an overview of GHG scopes and emissions across the value chain as presented in Figure 1.

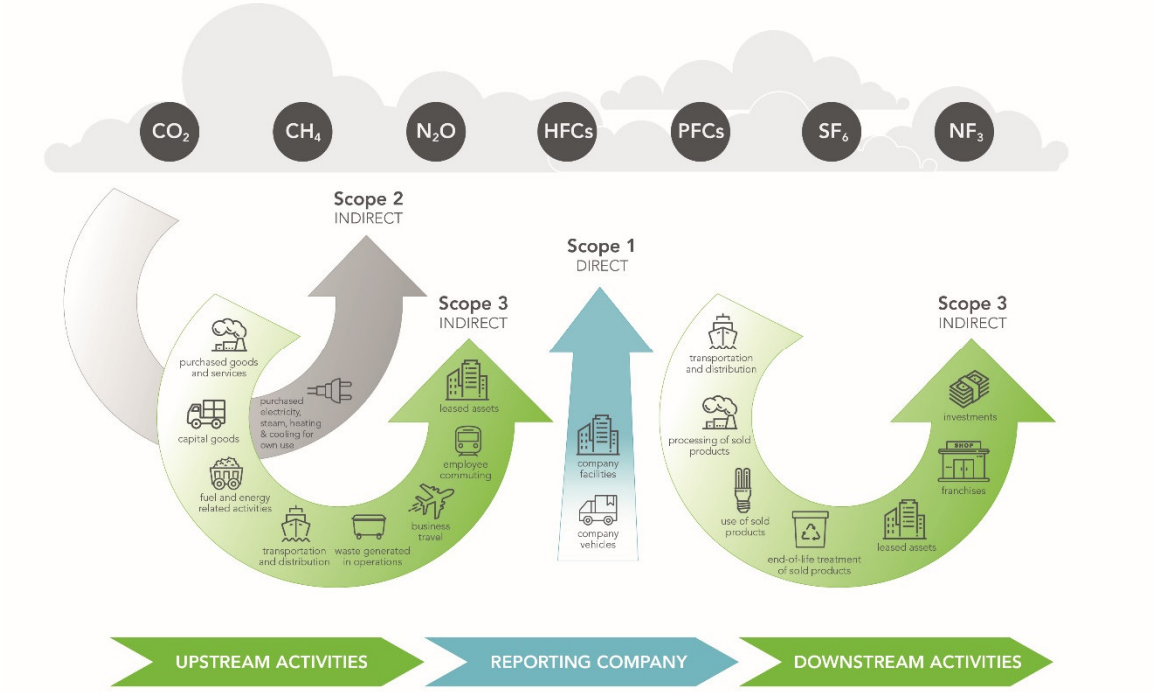


Figure 1. All-scopes schematic (adapted from the GHG Protocol)

2.6.1 Scope 1

Scope 1 accounts for direct emissions released from sources that are owned or controlled by the reporting company. It includes fuel used in vehicle fleets, fuel combustion for heating and power, and any process or fugitive emissions such as refrigerant gas leakages.

2.6.2 Scope 2

Scope 2 accounts for indirect emissions associated with off-site generation of energy purchased by the reporting organisation. This includes purchased electricity, heat, steam, and cooling.

The GHG Protocol's *Scope 2 Guidance, an amendment to the Corporate Standard* (WRI and WBCSD, 2015) states that operations in markets providing product- or supplier-specific data in the form of contractual instruments should report scope 2 emissions in two ways:

[2] ISO 14064 – *Greenhouse gases — Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*

using the location-based method, and the market-based method. This is termed ‘dual reporting’.

2.6.2.1 Location-based reporting

This reflects the average emissions intensity of grids on which energy (usually electricity) consumption occurs. This applies to all locations where grids are used for the distribution of energy and where electricity demand causes the need for energy generation and distribution. Grid-average emission factors are used, based on statistical emissions information and electricity output, aggregated and averaged within a defined boundary and timeframe. This includes regional, sub-national and national production grid averages.

2.6.2.2 Market-based reporting

The market-based method reflects proportional emissions from specific electricity tariffs that consumers select in the market. Under this method an energy consumer uses the emissions factor associated with the qualifying contractual instruments it purchases. Available contractual instruments vary by market, but can include Energy Attribute Certificates (EACs, which can include RECs, REGOs, and I-RECs), Power Purchase Agreements (PPAs) and other low-carbon products purchased from energy suppliers.

If an organisation does not have any such contracts (or its instruments do not meet the quality criteria), a residual mix factor, representing untracked or unclaimed energy emissions for that region, is used. If the residual mix is not available, the location-based method is applied, in which case the market-based and location-based totals will be the same.

2.6.3 Scope 3

Scope 3 includes all other indirect emissions sources not accounted for within scopes 1 and 2. The sources applicable will depend on a reporting organisation’s activities but could include purchased goods and services, capital goods, business travel, commuting, waste disposal, emissions from use of company-derived products or materials, and outsourced activities such as deliveries.

The GHG Protocol’s *Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (WRI and WBCSD, 2011) groups scope 3 emissions into 15 categories to provide a framework to organise, understand and report these emissions.

Scope 3 activities typically contribute a significant proportion of an organisation’s overall emissions.

2.7 Measuring climate impacts from aviation

To capture the overall aviation effects on climate, as well as GHG emissions, it is recommended that reporting organisations account for radiative forcing in their greenhouse gas assessment. This is a result of unfolding evidence suggesting that high altitude jet fuel combustion also provokes non-greenhouse gas climate effects, such as aviation induced clouds or soot particles. It is considered excluding emissions associated with radiative forcing would under-state the overall climate impact of flights and is therefore not recommended.

2.8 GHG accounting principles

Nature Positive's approach to carbon accounting is to follow the GHG Protocol's core principles where possible:

- Relevance: selecting an appropriate inventory boundary that reflects the GHG activities of the company and serves the decision-making needs of users.
- Completeness: accounting for all emission sources within the chosen inventory boundary, with any specific exclusions disclosed and justified.
- Consistency: aiming to collect meaningful and consistent data over time whilst transparently documenting any significant changes to data quality and/or format.
- Transparency: addressing all relevant issues in a coherent and clear manner.
- Accuracy: minimising uncertainty and avoiding systematic over- or under-quantification of emissions and ensuring any necessary estimates or assumptions required are conservative and guided by industry standards.

2.9 Data quality and accuracy

The accuracy of a GHG assessment is directly related to the quality of the activity data provided. Primary data should be used where available: this represents actual activities during the reporting period (such as metered kWh of electricity consumed).

Secondary data – in the form of estimates, extrapolations, modelling, benchmarks, industry averages or other proxy sources – may be used when reliable primary data is not available. Assessments based largely on secondary data should be viewed as an estimate of GHG emissions impact, and actual emissions may vary significantly.

Although comprehensive primary data may not always be available for all emissions sources, in general it is good practice to continually improve the proportion of primary data over time. This applies to many scope 3 emissions sources, where primary data is unlikely to be available for an initial assessment but should be improved over time.

3 METHODOLOGY

3.1 Introduction

This report considers GHG emissions associated with the sites listed in Table 4. During the reporting period, Shred Station employed 195 FTEs at their three sites, with a combined floor area of 48,000 ft^2.

Table 4: Locations assessed

Site name and location	Floor area (ft^2)	FTE
Norwich: Osborne House, Wendover Road, Rackheath. NR13 6LH. UK	14,000	108
Harlow: Unit B River Way, Harlow. CM20 2DP. UK	20,000	53
Manchester: Rok Court, Parkway, Denton. M34 3SG. UK	14,000	34
Total	**48,000**	**195**

3.2 Approach

On project commencement, possible emissions sources across all scopes were screened for relevance and a bespoke data form was provided. On receipt of the activity data, Nature Positive completed data a quality assurance process. Conservative benchmarks and assumptions were used where applicable in line with good practice, and in agreement with Shred Station, as described in Section 3.3.

GHG emissions were quantified by applying the most relevant emission factors. GHG emission factors relating to the 2025 reporting year are predominantly sourced from the 2025 UK Government GHG Conversion Factors for Company Reporting (DESNZ July 2025). Expenditure based analysis used Environmental Extended Input-Output (EEIO) factors to assess the environmental impact of economic activities.

Transmission and distribution emissions (those associated with grid and network losses for purchased electricity have been included as well as well-to-tank emissions (those associated with extraction and primary processing) for fuels and electricity for scopes 1 and 2. Well-to-tank emissions have been included for the following scope 3 categories: transportation and distribution, employee commuting and business travel. Radiative forcing (see Section 2.7) has been included for aviation if relevant.

Whilst Scope 3 Categories 10 and 12, Processing of Sold Products and End-of-Life Treatment of Sold Products have been quantified, the organisation's activities are more appropriately characterised as the collection, processing and transfer of waste materials for recycling. Under this interpretation, recovered paper transferred to paper mills represents waste under management rather than a sold product. As a result, downstream processing and end-of-life emissions may fall outside the intended scope of Categories 10

and 12. The estimates should therefore be considered indicative and have been included on a precautionary basis rather than because of a clear GHG Protocol requirement.

Note that results within tables in this report are accurate to the number of significant figures presented. Any inconsistencies in totals versus individual values are due to rounding and should not be viewed as erroneous.

Shred Station identified the following scope 3 categories as not applicable to their operations:

- Upstream leased assets (category 8)
- Downstream transportation and distribution (category 9)
- Use of sold products (category 11)
- Downstream leased assets (category 13)
- Franchises (category 14)
- Investments (category 15)

3.2.1 Scope 2 methods

3.2.1.1 Electricity Emissions Methodology

Electricity GHG emission factors are applied using a defined hierarchy of data sources, prioritising country-specific and authoritative datasets to help ensure completeness, consistency, and accuracy.

Supplier-reported factors (which are typically expressed in $kgCO_2e/kWh$) are applied for market-based emissions where the supplier is known and has a publicly available factor. (Note that where the supplier has reported in $kgCO_2/kWh$, this is assumed to represent CO_2e; this is due to the relatively immaterial contribution of non-CO_2 gases and is consistent with standard Scope 2 market-based reporting practice.)

For the UK, electricity emission factors for electricity generation (location-based approach), transmission and distribution (T&D), well-to-tank (WTT), and WTT T&D emissions are sourced from the UK Department for Energy Security and Net Zero (2025 edition). Market-based emission factors are derived from the UK government's published electricity fuel mix data.

3.2.2 Scope 3 methods

Obtaining activity data for some scope 3 emission sources can be challenging. For example, the typical scope 3 methods for estimating GHG emissions from purchased goods and services and capital goods are listed below in ascending order of accuracy:

- Spend-based
- Average data (such as industry average emission factors)
- Hybrid (combination of supplier-specific and average data)
- Supplier-specific

The goal should therefore be to move from a spend-based assessment to a supplier-specific assessment (for key goods and emission sources) over time.

Similarly, when determining freight and business travel emissions, actual fuel consumption in vehicles is the most accurate data source but will often be unavailable, in which case mass, mileage and transportation method form an adequate proxy.

In this report, due to data limitations, some categories may have been assessed with high-level or spend-based data and emissions factors with a view to refining these in future iterations. Where appropriate, this report recommends priority areas for improving activity data or supplier-specific emissions factors.

3.3 Key assumptions

Primary data was used where possible for the GHG assessment. However, where data was unavailable, efforts were made to estimate the likely associated emissions for the reported activity. Following the quality assurance phase, the following assumptions were agreed for the reporting year with Shred Station.

- Where vehicle and fuel type not specified, all car journeys have been assumed as average car size, unknown fuel.
- Employee commuting data was provided for some employees; the results were extrapolated to represent commuting for all employees at all sites.
- A cost-to-distance conversion was applied to taxi and rail journeys based on standard local tariffs.
- Purchased goods and services, capital goods and outbound courier deliveries were estimated from spend data using applicable EEIOs.
- An estimate of waste from operations was made based on the maximum bin capacity and the number of bins emptied over the 12-month period. Alternatively, where only number of bins was provided, it was assumed equivalent to 5 kg of waste.
- To estimate emissions from end-of-life treatment of sold products, UK paper recycling statistics were applied[3].
- To estimate emissions associated with downstream processing of sold product, typical energy requirements for use of paper feedstock were considered.

[3] National Recycling (2025). Available online: https://nationalrecycling.co.uk/recycling-statistics/

4 OPERATIONAL BOUNDARY AND DATA QUALITY

4.1 Data review

Shred Station has advised those emissions sources for inclusion for the assessment as well as those emission sources that are not considered relevant to their operations. Table 5 presents the GHG categories across all three scopes, and identifies whether they were assessed, not assessed or not applicable (NA) to the operation. It also provides a high-level data quality review, with suggested improvement actions for future GHG assessments.

A combination of primary and secondary data was considered for the assessment. Total primary data provided for the assessment was ~32%.

We recommend that Shred Station prioritises efforts to collect primary data for all emission sources within scopes 1 and 2. Collation of primary data for scope 3 tends to be more challenging; however, efforts to obtain this data for significant scope 3 emissions sources would yield greater accuracy to the assessment.

4.1.1 Key data improvement recommendations

The following steps are recommended to improve data quality for future assessments:

- Record fuel type and consumption in litres or gallons for all COVs (including plug in hybrids) in preference to mileage. If fuel consumption data is unavailable, record distance travelled. For EVs, if charging offsite, record kWh. (On-site charging is captured in electricity consumption provided.)
- Collect scope 1 and 2 data from paper mill(s) (this is typically fuel and electricity consumption). We recommend you request the following:
    - Scopes 1 (typically fuel consumption) tCO_2e
    - Scope 2 (typically electricity consumption) tCO_2e
    - Tonnes of paper/board product produced annually
    - Ratio of tonnes of shredded paper to tonnes of product. E.g. 1.2 t shredded paper: 1 tonne paper/board product.
- Purchased goods and services and capital goods: To engage a certain percentage of Shred Station's suppliers (by emissions or spend) to obtain product-level cradle-to-gate GHG data, or site-specific energy use or emissions data where available.

Table 5: Operational boundary and data quality

Ref	Emission source description	Emissions source	Boundary	Data quality review	Suggested improvement actions	Priority
1	Scope 1	Refrigerant gas losses	Assessed	Client confirmed no top ups during the reporting period.	-	**NA**
		Stationary sources	Assessed	Natural gas consumption provided in m^3.	-	**NA**
		Mobile sources	Assessed	Primary data provided in fuel type and consumption for majority of COVs. Secondary data also provided in mileage.	Record fuel type and consumption in litres or gallons for all COVs (including plug in hybrid). If data is unavailable, record distance travelled as per this year. For PHEVs, record distance travelled and kWh.	**Medium**
2	Scope 2	Electricity consumption	Assessed	Primary data provided in kWh for all sites.	-	**NA**
3-1	Purchased goods and services (PG&S)[4]	Water	Assessed	Water: Consumption provided in m^3.	-	**NA**
		All other PG&S	Assessed	Other purchased goods and services: Data provided in spend per category, applying EEIOs according to category.	Request product- and service-specific emissions factors from strategic suppliers to enhance future reporting and track reductions.	**Low**
3-2	Capital goods	Capital goods	Assessed	Data provided in spend per category, which has been calculated using	Request product- and service-specific emissions factors from strategic suppliers to enhance future	**Medium**

[4] Purchased goods and services tend to be a significant emissions source for most organisations. Whilst water tends to only account for a very minor portion of this category it is often monitored by organisations for wider ESG purposes.

Ref	Emission source description	Emissions source	Boundary	Data quality review	Suggested improvement actions	Priority
				EEIO's according to category.	reporting and track reductions.	
3-3	Fuel- and energy-related activities (not included in scope 1 or scope 2)	T&D losses[5]	Assessed	Derived from electricity consumption data.	Refer to electricity consumption	**NA**
		Upstream electricity (WTT)	Assessed	Derived from electricity consumption data.	Refer to electricity consumption and mobile consumption.	**NA**
		Upstream fuels (WTT[6])	Assessed	Derived from fuel(s) consumption data.	Refer to stationary and mobile fuel consumption.	**NA**
3.4	Upstream transportation and distribution	Outbound courier deliveries of packages	Assessed	Data provided as spend.	Collect data on number of packages sent, weight and distance travelled where possible.	**Low**
		Upstream third-party distribution and storage of production-related goods	Not applicable	Not applicable	-	**NA**
3-5	Waste generated in operations	Waste	Assessed	Data provided in kg for recycled waste. Incinerated waste provided as number of bins and composted waste provided in litres.	Collect waste mass in kg or tonnes for all waste streams.	**Low**
		Wastewater	Assessed	Derived from water consumption	Wastewater discharge volume derived from water consumption is a suitable proxy	**NA**
3-6	Business travel	Business travel	Assessed	Flight data with distance travelled and class (e.g.	Collect business travel data in km/miles. For	**Low**

[5] Transmission and distribution (T&D) losses refer to the scope 3 emissions associated with grid losses (the energy loss that occurs in getting the electricity from the power plant to the organisations that purchase it).

[6] Well-to-tank (WTT) emissions refer to the impact of the extraction, refining and transportation of primary fuels before their use in the generation of electricity. WTT was included for all scopes 1 and 2 sources. WTT was included for business travel, employee commuting and transport and distribution.

Ref	Emission source description	Emissions source	Boundary	Data quality review	Suggested improvement actions	Priority
				economy/business) provided as primary data. However, some class data was missing. Rail and taxi provided as spend. Car hire data provided as distance travelled.	flights, also collect flight class and haul type.	
		Hotel stays	Assessed	Hotel data provided as nights stayed per country.	-	**NA**
3-7	Employee commuting	Employee commuting	Assessed	Employee commuting survey provided for 66 FTEs. Data extrapolated.	Continue to conduct employee commuting surveys to gather data on distance, mode, and frequency by transport type. Aim to improve response rate where possible.	**Low**
		Remote working	Assessed	Total number of homeworking days provided.	-	**NA**
3-8	Upstream leased assets	Operations of assets leased (not included in scope 1 and 2)	Not applicable	-	-	**NA**
3-9	Downstream transportation and distribution	Downstream third-party distribution and storage of production related goods (not already included in 3-4)	Not applicable	-	-	**NA**
3-10	Processing of sold products	Processing of intermediate products sold by downstream companies - such as manufacturing	Assessed	Total kg of shredded paper sold to paper mills provided. Downstream emissions estimated using industry average data.	Obtain scope 1 and 2 emissions from paper mills, and ratio of tonnes paper/board product: tonnes shredded paper.	**High**

Ref	Emission source description	Emissions source	Boundary	Data quality review	Suggested improvement actions	Priority
3-11	Use of sold products	End use of goods and services sold (e.g. electricity consumption)	Not applicable	-	-	**NA**
3-12	End-of-life treatment of sold products	Waste disposal and treatment of products sold	Assessed	Total kg of shredded paper sold to paper mills provided. End of life processing method estimated using UK waste statistics.	This is a suitable proxy. Not possible to extract primary data for end-of-life treatment route for sold products.	**NA**
3-13	Downstream leased assets	Operation of assets owned and leased[7]	Not applicable	-	-	**NA**
3-14	Franchises	Operation of franchises	Not applicable	-	-	**NA**
3-15	Investments	Operation of investments	Not applicable	-	-	**NA**
Assessment emissions based on primary data:						**32%**

WTT emissions for scope 1 and 2 sources, as well as scope 3 sources (transportation & distribution, business travel, employee commuting) were included in the assessment for the relevant categories.

[7] Not included in scopes 1 and 2

5 GHG EMISSIONS OVERVIEW

5.1 GHG emissions metrics

Shred Station's total GHG emissions assessed for 2025 were 23,361 tCO_2e using the market-based method and 23,285 tCO_2e using the location-based method.

Absolute GHG emissions can vary over time and often correspond to the expansion or contraction of an organisation. It is therefore useful to use reporting metrics that take these effects into account to establish emissions intensity. Common emissions intensity metrics include tCO2e per £m turnover, employees, output, or floor area.

GHG emissions for market and location-based reporting, together with intensity metrics related to company activities, are presented in Table 6.

Table 6: GHG emissions metrics

Metric	GHG emissions (tCO_2e)	
	Market-based	Location-based
Total GHG emissions	23,361	23,285
GHG emissions per FTE (195)	120	119
GHG emissions per GIA (48,000 ft^2)	0.5	0.5

5.2 GHG emissions by scope

Scope 3 emissions (other indirect emissions) represent the majority of emissions at 83% (it is typically found that scope 3 emissions account for the majority of an organisation's carbon footprint).

Scope 3 emissions were predominantly from downstream processing of sold products (64%). Scope 1 emissions from company owned vehicles and natural gas accounted for 16% of total emissions. Scope 2 emissions from electricity consumption accounted for the remaining 1%.

Table 7: GHG emissions by scope

Scope	GHG emissions (tCO_2e)	
	Market-based	Location-based
Scope 1	3,713	3,713
Scope 2	265	190
Scope 3	19,383	19,383
Total	**23,361**	**23,285**

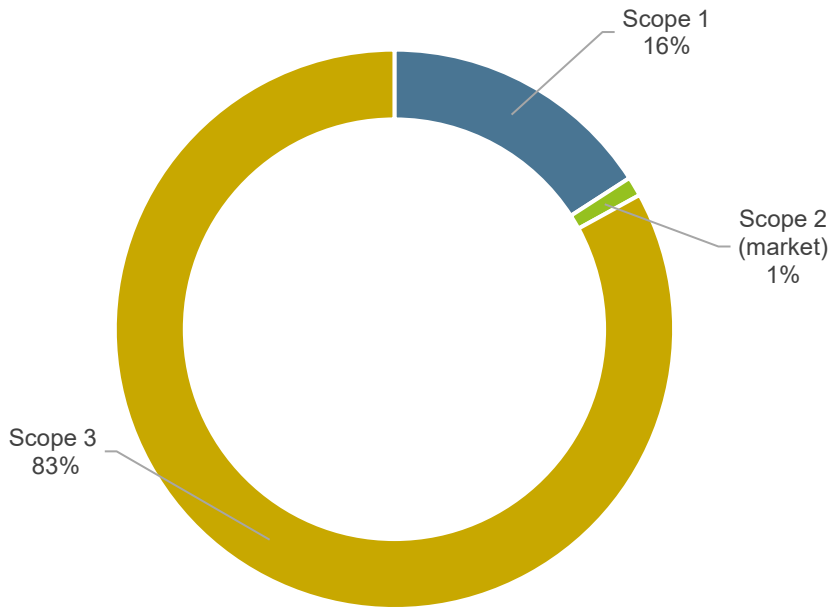


Figure 2. Market-based GHG emissions by scope (tCO_2e)

5.3 GHG emissions by category

Table 8 presents the detailed GHG emissions for the scopes, including those scope 3 categories assessed (as per the GHG Protocol).

The largest category assessed, accounting for 64% of the total, is downstream processing of sold products. The other key categories assessed include:

- End-of-life treatment of sold products at 11% of total emissions.
- Company owned vehicles at 16% (when including upstream WTT emissions are 20%) of total emissions.

Table 8: GHG emissions category overview

Scope	Category name	GHG emissions (tCO_2e)	% of total
1	Natural gas	3	<1%
1	Company owned vehicles	3,710	16%
2	Purchased energy	265	1%
3-1	Purchased goods and services	1.9	<1%
3-2	Capital goods	681	3%
3-3	Fuel and energy related activities (scope 1 and 2)	956	4%
3-4	Upstream transportation & distribution	5.5	<1%
3-5	Waste generated in operations	0.2	<1%
3-6	Business travel	86	<1%
3-7	Employee commuting & remote working	203	<1%
3-10	Processing of sold products	14,943	64%
3-12	End of life of sold products	2,506	11%
Total		**23,361**	**100%**

The following scope 3 categories have included WTT emissions: transportation and distribution, business travel and employee commuting. Scope 3 category 3, fuel and energy related activities include WTT emissions for Scopes 1 and 2 in line with GHG Protocol reporting requirements. NP was advised that categories 3-8, 3-9, 3-11 and 3-13 through to 3-15 were not applicable.

5.4 GHG emissions by source category

Table 9 and Figure 3 presents GHG emissions by source relating to company activities. Total GHG emissions attributed to Shred Station's premises were 1,025 tCO_2e, company owned vehicles were 4,592 tCO_2e, and downstream processing and end of life emissions were 17,449 tCO_2e. Business travel emissions were comparatively small at 86 tCO_2e, and other activities from commuting, homeworking and shipments were 208 tCO_2e.

Table 9: GHG market emissions by source category

Activity	GHG emissions (tCO_2e)	Subtotal (tCO_2e)
Premises		
Natural gas incl. WTT	3.4	**1,025**
Electricity, incl. T&D and WTT	339	
Waste and wastewater	0.2	
Purchased goods and services	1.9	
Capital goods	681	
Company owned vehicles		
Diesel, Lorry (incl. WTT)	4,583	**4,592**
Unknown, Car (incl. WTT)	3.9	
Hybrid, Car (incl. WTT)	5.2	
Downstream processing and end of life		
Downstream processing of sold products	14,943	**17,449**
End of life treatment of sold products	2,506	
Business travel		
Flights	9.0	**86**
Grey fleet	19	
Public transport	1.6	
Hotel stays	57	
Other		
Employee commuting	199	**208**
Remote working	3.4	
Transportation and distribution (courier)	5.5	
Total		**23,361**

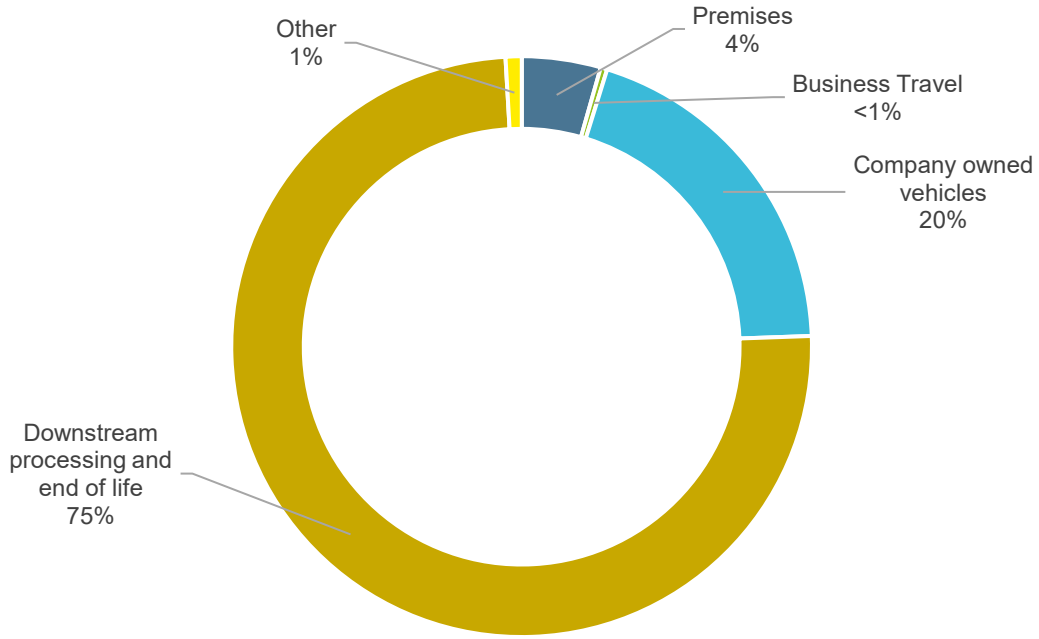


Figure 3. Market-based GHG emissions by source (tCO_2e)

6 COMPARISON OF ANNUAL EMISSIONS

Table 10 compares GHG emissions from Shred Station's current (2025) and previous (2024) GHG assessments. Given that Shred Station has expanded the scope of works to a full-scope assessment there has been a significant increase in scope 3 emissions (indirect value chain emissions), as is typical for an organisation embarking on a full-scope assessment for its first year. The table below separates the comparison between emission categories included in last years' assessment as well as the additional categories included this year.

When comparing variables measured in both years, overall, there has been a 6% increase in emissions. This is largely attributed to a change in electricity emissions. However, it should be noted that this is due to a change in supplier fuel mix - when looking at kWh electricity consumption, there has been a 6% reduction in overall electricity use in 2025.

The change in homeworking emissions is largely attributed to a minor change in methodological approach between the two reporting periods, although there has also been a reduction in homeworking days in 2025.

Finally, waste emissions have reduced. This is partially due to a reduction in recycled waste produced in 2025, as well as resulting from annual updates to the emission factors applied.

Table 10: Comparison of 2024 & 2025 GHG emissions (market-based)

Emissions source category	GHG emissions (tCO_2e)			
	2024	2025	Change value	Change %
Mains gas excl. WTT	3.3	2.9	**-0.4**	**-11%**
Mains gas WTT	-	0.5	**-**	**-**
Company owned vehicles (excl. WTT)	3,571	3,710	**135**	**4%**
Company owned vehicles WTT	-	882	**-**	**-**
Electricity incl. T&D, excl. WTT (market)	168	285	**117**	**70%**
Electricity WTT	-	53	**-**	**-**
Water and wastewater	0.3	0.3	**<0.1**	**-6%**
Waste	0.2	0.1	**-0.1**	**-71%**
Purchased goods and services	-	1.7	**-**	**-**
Capital goods	-	681	**-**	**-**
Business travel	42	29	**-13**	**-30%**

Emissions source category	GHG emissions (tCO_2e)			
	2024	2025	Change value	Change %
Hotel stays	-	57	-	-
Employee commuting	-	199	-	-
Remote working	1.7	3.4	**1.7**	**99%**
Outbound couriers	-	5.5	-	-
Downstream processing of sold products	-	14,943	-	-
End of life treatment of sold products	-	2,506	-	-
Total (variables measured in both years)	**3,787**	**4,027**	**240**	**6%**
Total (2025 full-scope)	**3,787**	**23,361**	**19,574**	**517%**
Emissions per FTE staff (of variables measured in both years)	22	21	**1.0**	**5%**
Emissions per sqm floor area (of variables measured in both years)	0.08	0.08	**-0.01**	**-6%**

As Shred Station has expanded to a full-scope GHG assessment, the reporting boundary now captures a broader range of value chain emissions. As a result, the increase in reported Scope 3 emissions largely reflects a more comprehensive accounting of emissions sources, rather than a like-for-like increase in underlying business activity.

7 SCIENCE-ALIGNED TARGET

Science-aligned targets are emissions reductions targets that if met, are reported to limit global warming to 1.5°C above pre-industrial levels - in line with the goals of the Paris Agreement. The Science Based Targets initiative (SBTi) is a governing body that has published a methodology that organisations can follow to set these targets.

Shred Station has advised they are a SME[8] and elected to set a near-term science-aligned target.

From a 2025 calendar year base year, Shred Station will:

- Reduce scope 1 emissions by 42% in absolute terms **by 2035**
- Reduce scope 2 emissions by 67% via procurement of renewable energy contracts **by 2035.**
- Continue to measure and reduce scope 3 emissions.

These targets will be valid from 1st January 2025 (the target year can be no more than ten years from the pledge year) and are no longer valid should the company meet recalculation criteria[9].

In order to initiate emissions reductions and achieve these targets, it is advisable that Shred Station establish a carbon management plan (The Plan). The Plan will guide Shred Station through a decarbonisation pathway and lay out a step-by-step process to reduce emissions. Annual emissions will be reported against these targets year on year to track progress.

[8] SME Small and Medium Enterprise

[9] The following changes trigger a target recalculation.

- Scope 3 emissions become 40% or more of aggregated scope 1, 2, and 3 emissions (applies only to near-term science-based targets).
- Changes in the consolidation approach chosen for the GHG inventory.
- Emissions or exclusions in the inventory or target boundary change significantly.
- Significant changes in company structure and activities (e.g., acquisition, divestiture, merger, insourcing or outsourcing, shifts in goods or service offerings).
- Adjustments to data sources or calculation methodologies resulting in significant changes to an organization's total base year emissions or the target boundary base year emissions (e.g., discovery of significant errors or a number of cumulative errors that are collectively significant).
- Other significant changes to projections/assumptions used in setting the science-based targets.

For more detail, see the Science Based Targets initiative. (2024). *Corporate Net-Zero Standard (Version 1.2).*

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