

# Journey to Net Zero

## Gratte Brothers Roadmap

V05

06/01/2026

# Contents

## Table of Contents

1- Introduction- Commitment to Net Zero .....	4
2- Data Integrity and Validity .....	5
3- Emissions Reporting .....	5
4- Emissions Data.....	6
5- Discussion of Emissions Reporting and Targets.....	7
5.1- Scope 1.....	7
5.1.1- Mobile Combustion .....	7
5.1.2 - Stationary Combustion.....	8
5.2- Scope 2.....	9
5.3- Scope 3 .....	10
6- Emissions Reduction Targets.....	11
7- Carbon Reduction Projects .....	12
7.1- Completed Projects.....	12
7.2- Planned Projects.....	13
8- Declaration and Sign Off .....	14
Appendix A- Emissions Databases.....	15
Appendix B- Net Zero Data- GHG Protocol- Scopes 1, 2 and 3.....	16
Appendix C- Net Zero Data- ISO14064 categories.....	17
Appendix D- Uncertainty Statement.....	18
Appendix E- Scope 1- Mobile Combustion Data.....	19
Appendix F- SBTi Target Setting .....	20

Version History:

04/08/2023- Journey to Net Zero Roadmap V01- Covering 2021-2022 Data  
22/03/2024- Journey to Net Zero Roadmap V02- Covering 2021-2023 Data  
16/12/2024- Journey to Net Zero Roadmap V03- Covering 2021-2024 Data  
25/11/2025- Journey to Net Zero Roadmap V04- Covering 2021-2024 Data (Updated)  
06/01/2026- Journey to Net Zero Roadmap V05- Covering 2021-2025 Data

## 1- Introduction- Commitment to Net Zero

As part of Gratte Brothers Group journey to a more sustainable future, we are committed to becoming a net zero company before 2050, aligning ourselves with the Paris Agreement and the UK Government's target to reach net zero emissions by 2050.

For four years (2021-2025), we have assessed our carbon emissions across all three scopes. To ensure that our footprint, goals, and progress tracking are verifiable and data driven, we are working with a specialist carbon accounting company, Normative.

This report has been prepared to support our organisational strategies by quantifying and reporting emissions in line with the above purpose. It is intended for use by our value chain, and internal employees to inform decision-making. This report will be released internally and externally on an annual basis, via the Gratte Brothers website or intranet.

Internally, our Journey to Net Zero is driven by the Group Sustainability Manager and Environmental Advisor. There is director and board level oversight of the strategy and emission reduction initiatives.

The Group has full financial and operational control of all companies. Gratte Brothers Group is a family-owned organisation with no joint ventures or external shareholders.

The companies included in the organisational boundary of this net zero roadmap are:

- Gratte Brothers Group Limited - based in London providing group management support for each of the subsidiary companies within the Group:
  - Gratte Brothers Limited - based in London, Chelmsford and Worthing, carrying out mechanical and electrical services (GBL).
  - Gratte Brothers Catering Limited - based in Stevenage, carrying out design, installation and maintenance of commercial kitchens (GBCE).
  - Gratte Brothers Security Management Limited - based in London, Belfast and Warrington, carrying out design, installation and maintenance of security systems (GBSM).
  - Gratte Brothers Building Services Maintenance Limited - based in London and provides Planned Preventative and Reactive Mechanical, Electrical and Public Health Maintenance Services (GBBSM).
  - Gratte Brothers Technical Services Limited - based in London, carrying out design and technical consultation (GBTs).

The following office locations are included directly within the organisational boundary :

- UK Head Office - N1 9RL
- Stevenage - SG1 2XP
- Cambridge - CB5 8PX
- Worthing - BN14 8NA
- Chelmsford - CM2 5AR
- Warrington - WA5 8WD
- Belfast - BT3 9LA

## 2- Data Integrity and Validity

Gratte Brothers' carbon accounting software provider is Normative. The method used for calculating our corporate carbon footprint is aligned with the Greenhouse Gas Protocol's Corporate Standard for creating greenhouse gas inventories.

Emissions factors are derived from scientifically vetted sources such as Exiobase, DEFRA and others (Appendix A). These factors translate business activities into CO<sub>2</sub>e. This ensures a complete and accurate greenhouse gas inventory following best practice.

Normative's calculation methodology is set out in their whitepaper 'Normative Emissions Calculation Methodology', which is publicly available: [White paper library | Normative](#).

## 3- Emissions Reporting

The following emissions categories (defined within the greenhouse gas protocol), have been determined to apply to the Gratte Brothers scope of works and have therefore been included in the calculations:

- Scope 1- Mobile Combustion
- Scope 1- Stationary Combustion
- Scope 2- Electricity
- Scope 3.1- Purchased Goods and Services
- Scope 3.2- Capital Goods
- Scope 3.3- Fuel and Energy-Related Activities
- Scope 3.4 Upstream Transportation and Distribution
- Scope 3.5- Waste Generated in Operations
- Scope 3.6- Business Travel
- Scope 3.7- Employee Commuting

*Note: emissions have also been mapped to the ISO14064 reporting categories and are defined as such in appropriate reporting sections.*

The following emissions categories (defined within the greenhouse gas protocol), have been determined to not apply to the Gratte Brothers scope of works due to the service nature of the operations, and have therefore been excluded from calculations:

- Scope 1- Fugitive Emissions
- Scope 2- Heating
- Scope 2- Cooling
- Scope 2- Steam
- Scope 3.8- Upstream Leased Assets
- Scope 3.9- Downstream Transportation and Distribution
- Scope 3.10- Processing of Sold Products
- Scope 3.11- Use of Sold Products
- Scope 3.12- End-of-Life Treatment of Sold Products
- Scope 3.13- Downstream Leased Assets
- Scope 3.14- Franchises
- Scope 3.15- Investments

## 4- Emissions Data

See below Table 1 for available emissions data.

Table 1 presents emissions data for Baseline (April 2021- March 22) through Year 3 (April 2024-March 25). The baseline year was selected as the first with complete scope coverage.

Table 1- Emissions Data

	Baseline (FY 2021-2022)	Year 1 (FY 2022-2023)	Year 2 (FY 2023-2024)	Year 3 (FY 2024-2025)
Scope 1	674	601	627	649
Scope 2	0	394	4	7
Scope 3	19,528	30,419	36,879	31,390
Total	20,202	31,414	37,510	32,046

See Appendix B for full breakdown of emissions by operating company and GHG protocol defined scope. See Appendix C for full breakdown of emissions by ISO14064 reporting categories.

*Note: emissions reported may be different to that reported in previous report versions, due to supplier data inclusion since publishing. All data is correct as per the date of issue.*

The data input types for the Year 3- FY 24/25 reporting year are set out below:

- Spend Based: 93.66%
- Activity / Supplier Provided: 6.34%

Note that supplier specific data tends to follow one year behind. This figure is the % of data currently calculated using supplier data.

Note that there are no biogenic emissions or GHG removals currently forming part of the Gratte Brothers Journey to Net Zero.

See statement regarding data uncertainty assessment in Appendix D.

All greenhouse gas emissions are reported in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) using 100-year Global Warming Potential (GWP100) values from the IPCC Fifth Assessment Report (AR5). Emissions include CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and other Kyoto Protocol gases where applicable. Unless otherwise specified, all totals are expressed in tCO<sub>2</sub>e.

## 5- Discussion of Emissions Reporting and Targets

### 5.1- Scope 1

#### 5.1.1- Mobile Combustion

- Scope 1 emissions primarily arise from fuel use in fleet vehicles. Figure 1 illustrates mileage, fuel type, vehicle mix and emissions (company-specific and detailed data in Appendix E).

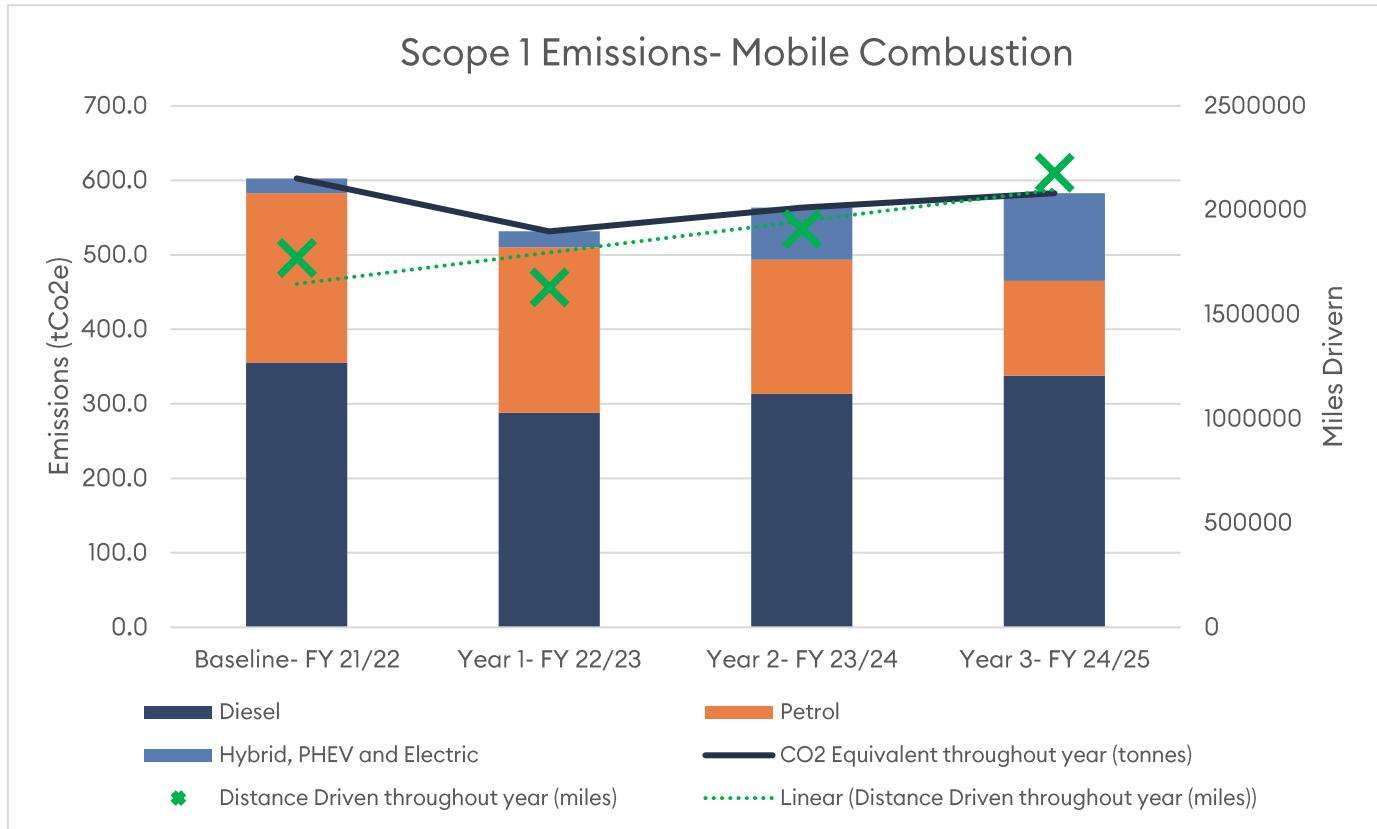


Figure 1: Scope 1 Emissions- Mobile Combustion

Key Trends- relative to baseline:

- Vehicle Changes:**
  - The total number of vehicles increased by 23.
  - Hybrid/Electric vehicles increased from 8% (2021) to 52% (2025).
- Distance Trends (Miles Driven):**
  - Diesel and Petrol vehicles saw declines in distance driven, consistent with a reduction in vehicle numbers.
  - Significant increases in distances driven by Hybrid and PHEV vehicles, consistent with an increased number of vehicles.
  - Electric vehicle mileage increased, consistent with an increased number of vehicles.
- Scope 1 emissions (CO2e in tonnes):**
  - Total emissions reduced by 20 tonnes CO2e.
  - The decline was driven by reductions in emissions from Diesel (-18 tonnes) and Petrol (-100 tonnes).

- Hybrid vehicles contributed an additional 75 tonnes of CO2e, consistent with their increase in usage.
- PHEVs contributed an additional 23 tonnes, while Electric vehicles produced no emissions associated with scope 1 (see scope 2 section for further detail).
- Shift Towards Low-Emission Vehicles:
  - Hybrid and PHEV adoption has increased.
  - This significant switch to lower emissions technologies has ensured that emissions reduce even while fleet number, and overall mileage driven, increase.
  - This is supported further by the fleet emissions intensity:
    - In the baseline year, the emissions per vehicle were 5.38 tCO2e.
    - In year 1, the emissions per vehicle were 4.92 tCO2e.
    - In year 2, the emissions per vehicle were 4.62 tCO2e.
    - In year 3, the emissions per vehicle were 4.32 tCO2e.

### 5.1.2 - Stationary Combustion

- Natural gas consumption in several offices contributes to Scope 1 emissions. Emissions have remained broadly consistent (within ±10 tCO<sub>2</sub>e). See Figure 2 and Appendix B.

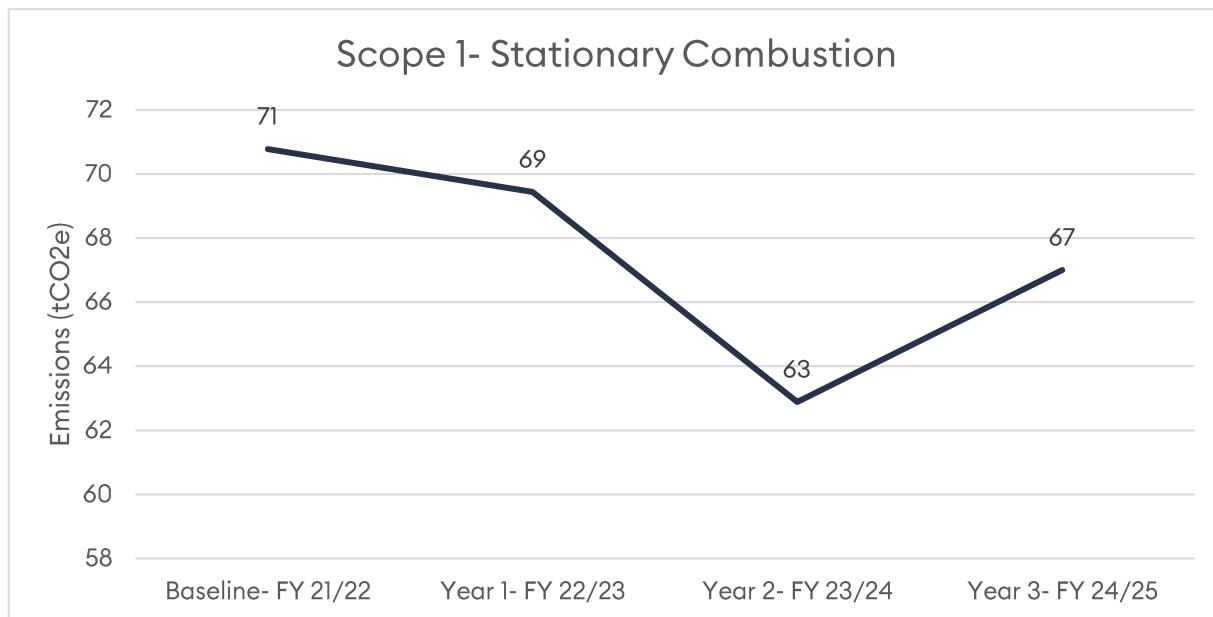


Figure 2: Scope 1- Stationary Combustion

## 5.2- Scope 2

- Scope 2 emissions have been calculated using both the location-based and market-based methodologies (Figure 3).
  - Market Based – This method accounts for emissions based on the specific energy contracts a company has chosen, such as renewable energy purchases, certificates, or carbon offsets.
  - Location Based – This approach calculates emissions based on the average emissions intensity of the grid mix where the energy is consumed.
- In the baseline year, scope 2 emissions sat at zero due to the use of renewable energy across our premises. Offices remain on verified renewable energy tariffs. More information on the initial increase seen in scope 2 can be found in the 2023 (V02) report.
- All site-based premises now utilise renewable energy. As such, the only source of scope 2 emissions (seen in FY 23/24 and FY 24/25) remains to be the charging of electric vehicles at home, where a renewable tariff cannot be confirmed.

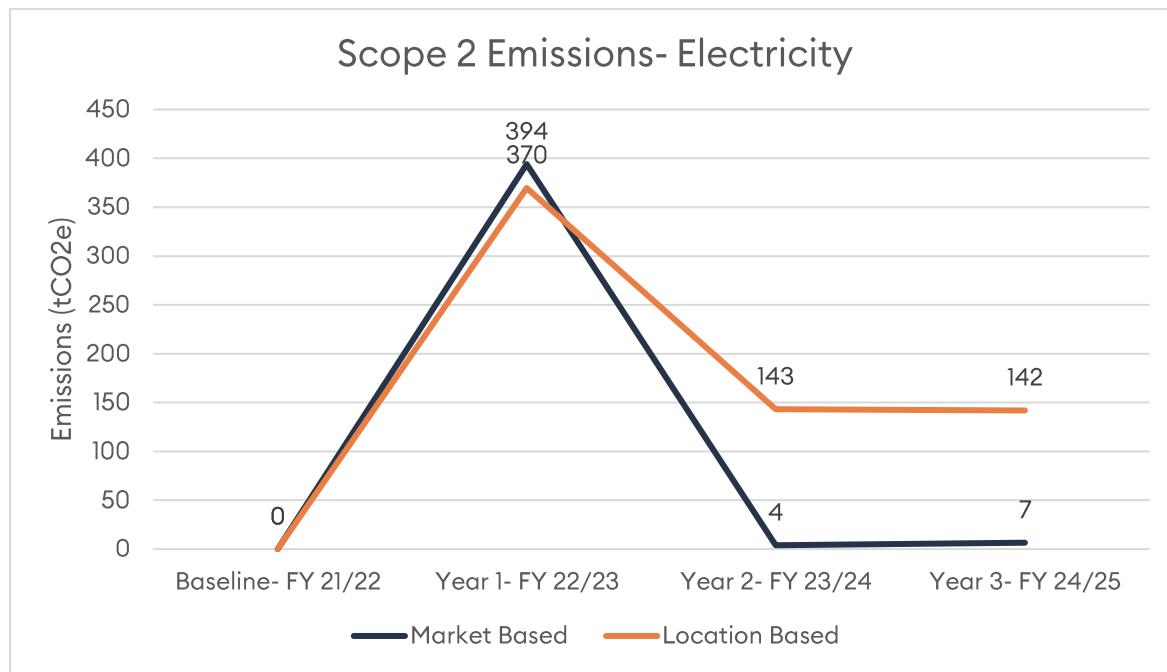


Figure 3- Scope 2 Emissions- Electricity

### 5.3- Scope 3

- The majority of scope 3 emissions continue to be calculated using the spend based approach. Compared to the baseline year, in both year 1 and year 2, a larger project base led to increased spend, and therefore an increase in absolute emissions using this approach. In year 3, a slightly reduced project base, and as such spend, led to a slight decrease in absolute emissions. More, higher value products lead to an increase in spend across the years.
- It is therefore important to also consider scope 3 emissions as an intensity factor- as emissions per £1m of turnover, presented below for reference:
  - Baseline year: 156 tCO2/£1m
  - Year 1: 109 tCO2/£1m
  - Year 2: 139 tCO2/£1m
  - Year 3: 119 tCO2/£1m
- Purchased goods and services account for >90% of scope 3 emissions, highlighting the importance of engaging with the supply chain to understand how these emissions can be reduced- discussed below.

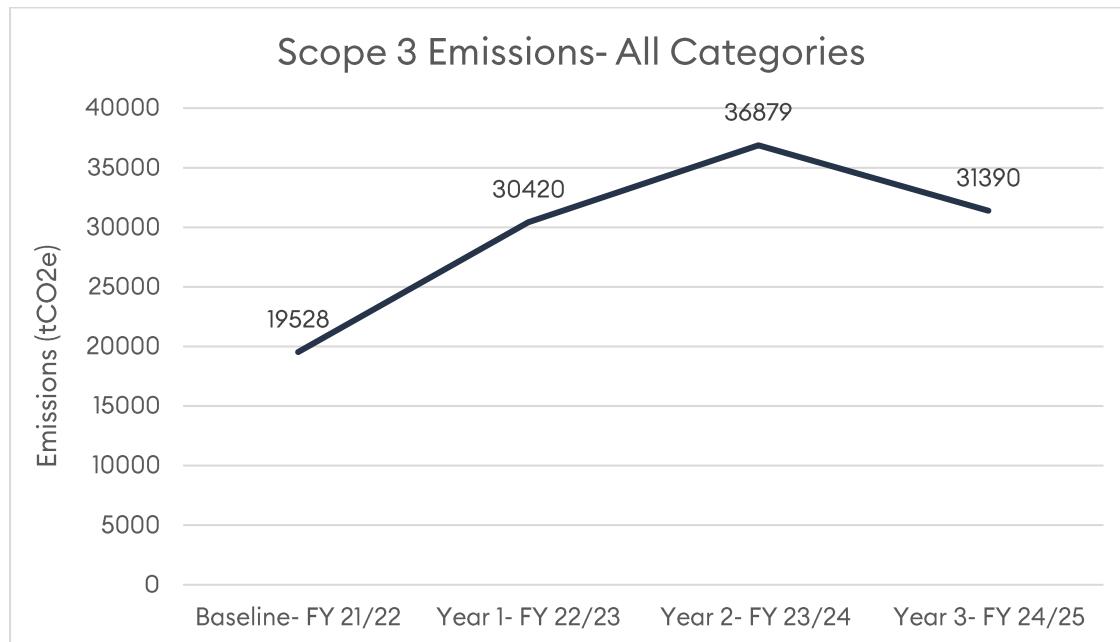


Figure 4- Scope 3 Emissions- All Categories

See Appendix B for emissions data, and for breakdown of scope 3 emissions by category. Figure 4 below demonstrates overall scope 3 emissions.

## 6- Emissions Reduction Targets

Gratte Brothers has set initial targets that align with the science-based targets mandated by SBTi. These targets are intended to guide future activity and reductions projects. This exercise was completed in 2023.

- Near Term:
  - For scope 1 and 2, an absolute 50% reduction by 2030/31, compared to a baseline year of 2021/22.
  - Internally, a scope 3 target to improve the % of data coming from non-spend based methods (i.e. activity, supplier or product data) has been set. An economic intensity target for 2030/31 is also being considered and will be confirmed in future reporting.
- Long Term: Absolute reduction of 90% of emissions to net zero by 2050 across all three scopes (inclusive of a maximum 10% offsetting of those residual emissions). This is in line with the Paris Agreement, 2015.

The baseline year to be used for these initial targets is the 2021-2022 dataset.

See Appendix F for the SBTi target setting tools used for this target setting exercise, which also highlights an initial consideration of an economic intensity target for scope 3. With regards to scope 1 and 2, the SBTi target setting tool calculates a required absolute reduction of 42%. By remaining with our previously set, data driven target of 50%, we are exceeding requirements.

While Gratte Brothers has aligned targets with the SBTi, these targets have not been externally validated- we plan to revisit this in the future and deem if it is necessary to seek external assurance. As Gratte Brothers are still in the data collection and discovery stage of the Journey to Net Zero, there is the potential that these targets could change as more data becomes available and allows the refining and re-definition of targets.

## 7- Carbon Reduction Projects

### 7.1- Completed Projects

Since 2021, and to date, the following projects have been implemented and are summarised below:

- Fleet update – by April 2025, 52% of all fleet vehicles, inclusive of engineers' vehicles and company cars, were either hybrid, PHEV or electric vehicles. This has been achieved through regular review of fleet, and early identification of those vehicles which can be replaced. This is an ongoing project.
- Vehicle Policy was updated to reduce CO2 allowance for each new company vehicle choice and encourage electric / hybrid car choices. The electric vehicle salary sacrifice scheme was introduced to encourage electric vehicle choices.
- Commuting survey – A survey was sent to all commuting employees to understand the distance, and method of transport used, for their regular commute. This also considered the number of working from home days. This data is now captured in our scope 3 data.
- Supplier engagement – A supplier engagement strategy was formed in 2023, and developed and implemented through 2024 and 2025.
  - Normative survey sent through data platform to 100 top suppliers, whilst also being part of the new supplier PQQ .
  - GBBSM hosted a 'sustainability seminar' for key suppliers, increasing engagement, and requesting organisational level data for at least scope 1 and 2. See more [here](#).
  - As below, this initiative will continue into the coming years, with company specific focuses rolling out across the group.
  - By working in partnership, we can ensure that our supply chain decarbonises at the same rate as Gratte Brothers.
- Improved data collection- Data collection for the scope 3 category – business travel- has improved. This is due to more granularity in grey fleet records, allowing the inclusion of vehicle type (i.e. petrol, diesel, hybrid, electric). This allows a more accurate representation of emissions, and targeted reductions initiatives to be put into place.
- Improved data collection- Data collection for the scope 3 category –purchased goods and services- has improved. This is due to more granularity in accounting and invoicing systems, allowing a more accurate representation of emissions and choice of emissions factor.
- Renewable energy tariffs – Energy purchased for our site premises is now ensured to be on a renewable tariff, ensuring that scope 2 emissions associated with this purchase remain zero. This was achieved through the engagement of the procurement and QS teams across the group.

## 7.2- Planned Projects

Table 2- Planned Decarbonisation Projects

Time Period	Scope	Project
2023-2030	1	<u>Fleet replacement and reduction</u> , continued movement towards hybrid vehicles, particularly for service and maintenance engineers. Introduction of electric vans for those engineers with appropriate mileage and charging facilities.
2024-2030	1	CO2 bandings within <u>vehicle choice policy</u> for company cars to reduce year on year to promote hybrid and electric vehicles as the best option.
Ongoing	2	Continued <u>renewable energy tariffs</u> for all Gratte Brothers premises, inclusive of supply for temporary site offices.
Ongoing	3	<u>Employee commuting</u> survey rolled out annually and implementation of opportunities to reduce emissions from commuting. <i>For example, promoting cycling schemes.</i> This has the added benefit of engaging and involving the workforce with the net zero journey. From 2024, additional questions regarding general sustainability strategies across the group will be included.
2026	3	<u>A review of waste</u> generated in operations, utilising tonnage data from waste management providers identifies areas for reduction, both in offices and on sites- with a focus on wood waste. From 2026- the introduction of a waste dashboard, presented monthly, to aid identification of key focus areas.
2023-2030	3	<u>Continued implementation of supplier engagement strategy</u> , to gather more granular data on the emissions produced. We will work with these suppliers to identify those areas in which emissions can be reduced and assisting with the implementation of these changes. From 2026, a focus on product level data availability will be implemented. We will also provide educational opportunities to our suppliers.
2025 Onwards	3	<u>Sustainability Summit Events</u> - following on from the success of the event for GBCE (2024) and GBBSM (2025), these events which bring together key suppliers to discuss opportunities and risks regarding net zero, data collection and target setting, will be rolled out across the group.
2024 - 2026	3	In line with the supplier engagement strategy, a review of <u>sustainable procurement</u> initiatives group wide.
Ongoing	3	Generally refining scope 3 data and <u>upgrading to activity data</u> from transactional data to get a better oversight of scope 3 emissions. Initial focus to sit with gaining weight data and CO2 data for larger equipment (i.e. those largest suppliers).
2040 Onwards	All	Identification of verified carbon capture / sequestration investment opportunities.

On an annual basis, this table will be updated.

## 8- Declaration and Sign Off

Emissions within this roadmap have been reported and recorded in accordance with the GHG reporting protocol corporate standard and ISO14061-1, using the appropriate government emission conversion factors for greenhouse gas company reporting.

This roadmap to net zero has been reviewed and signed off by the Board of Directors.

This roadmap to net zero will be reviewed and updated with the latest data on an annual basis, in line with the data analysis cycle.

Signed on behalf of Gratte Brothers Group Limited



09/01/2026

.....  
David Gratte, Group Managing Director

## Appendix A- Emissions Databases

Below is a list of the emissions databases used:

### FY21/22

- Defra (2020)
- AIB 2020
- Exiobase: 3.8.1

### FY22/23

- Defra (2022)
- IEA-Energy-Prices
- AIB (2022)
- Exiobase (3.8.1)

### FY23/24

- Exiobase (3.8.2)
- Defra (2023)
- IEA-Emissions-Factors (2023)
- Defra (2020)
- Ecoinvent (3.9.1)
- AIB (2022)

### FY24/25

- DESNZ (2024)
- AIB (2023)
- Exiobase (3.8.2)
- DESNZ (2020)
- IEA-Emissions-Factors (2024)

Description and full list of databases used by Normative: [Description of emissions databases used by Normative – Normative](#)

## **Appendix B- Net Zero Data- GHG Protocol- Scopes 1, 2 and 3**

## Appendix B(1): Net Zero Data- GHG Protocol- Scopes 1, 2 and 3.

Summary (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Scope 1	674	601	627	649
Scope 2 (Market-Based)	0	394	4	7
Scope 2 (Location Based)	0	370	143	142
Scope 3	19,528	30,419	36,879	31,390
Total (Market-Based)	20,202	31,414	37,510	32,046

	Scope 1 By Source (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Source	Diesel	356	288	313	338
	Petrol	227	223	180	127
	Natural Gas	71	69	63	67
	Hybrid	20	16	62	91
	PHEV	0	5	8	27
	Electric Vehicle	0	0	0	0
	<b>Total</b>	<b>674</b>	<b>601</b>	<b>627</b>	<b>649</b>

	Scope 1 By Company (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Company	Group	136	116	108	109
	GBL	116	85	96	161
	GBSM	252	237	231	197
	GBCE	155	135	180	160
	GBBSM	15	26	19	21
	GBTS	0	2	0	0

	Scope 2 By Source (Market-Based) (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Source	Electric Vehicle	0	2	4	7
	Site-Office Energy	0	392	0	0
	<b>Total</b>	<b>0</b>	<b>394</b>	<b>4</b>	<b>7</b>

	Scope 2 By Company (Market-Based) (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Company	Group	0	0	1.5	2.3
	GBL	0	392	2.0	0.7
	GBSM	0	0	0.5	3.5
	GBCE	0	2	0	0
	GBBSM	0	0	0	0
	GBTS	0	0	0	0

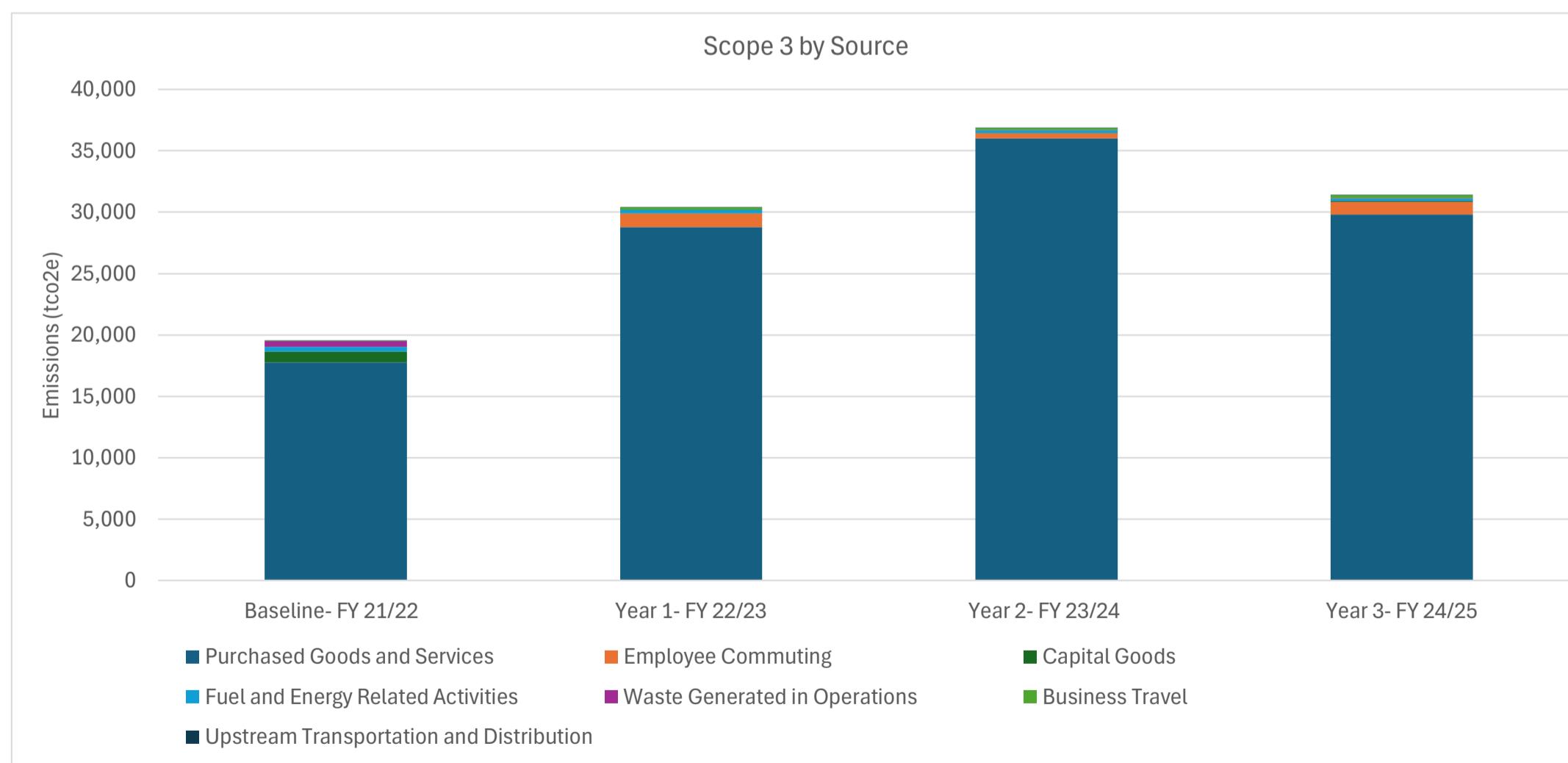
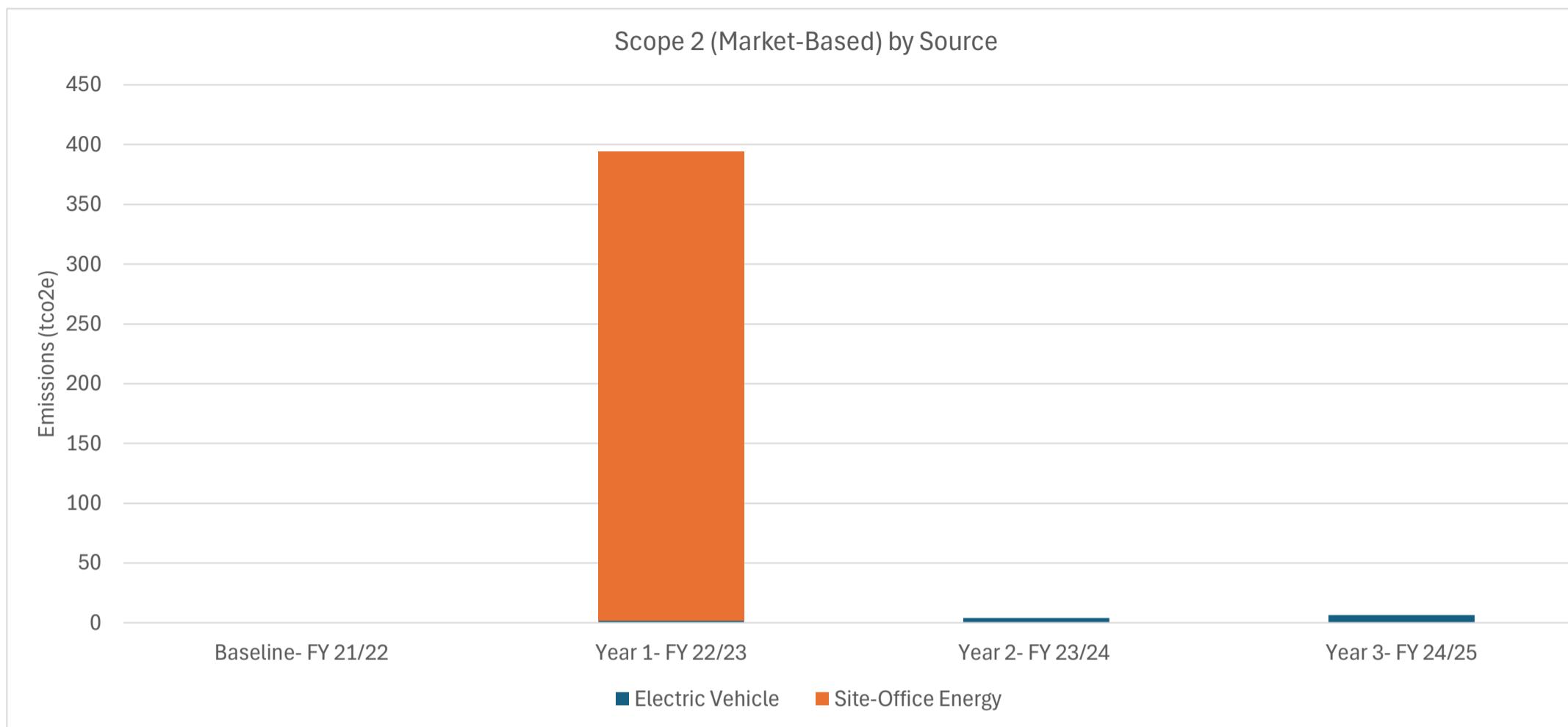
	Scope 3 By Source (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Source	Purchased Goods and Services	17,757	28,768	36,015	29,809
	Employee Commuting	Not Measured	1,111	395	1,043
	Capital Goods	882	34	43	66
	Fuel and Energy Related Activities	378	267	193	207
	Waste Generated in Operations	490	12	41	18
	Business Travel	9	217	188	234
	Upstream Transportation and Distribution	12	10	4	13
	<b>Total</b>	<b>19,528</b>	<b>30,419</b>	<b>36,879</b>	<b>31,390</b>

	Scope 3 By Company (tCO2e)	Baseline (FY 21/22)	Year 1 (FY 22/23)	Year 2 (FY 23/24)	Year 3 (FY 24/25)
Company	Group	837	1824	531	1417
	GBL	15187	24976	32085	25696
	GBSM	1543	1718	2111	2603
	GBCE	1578	1567	1638	1168
	GBBSM	326	266	450	464
	GBTS	57	68	63	42

## Appendix B(2): Net Zero Data- GHG Protocol- Scopes 1, 2 and 3.



## **Appendix B(3): Net Zero Data- GHG Protocol- Scopes 1, 2 and 3.**





## Appendix C- Net Zero Data- ISO14064 categories

### Appendix C: Net Zero Data- ISO14064 categories.

Emissions	CO2e Total tonnes	CO2	CH4	N2O	HFCs	PFCs	SF6	NF3
	GWP	1	30	273				
<b>1 Category 1: Direct GHG Emissions and removals in tonnes</b>								
1.1 Direct emissions from stationary combustion	66.50		66.37	0.10	0.03			
1.2 Direct emissions from mobile combustion	583.00		576.56	0.74	5.54			
1.3 Direct process emissions and removals arise from industrial processes	0							
1.4 Direct fugitive emissions arise from the release of greenhouse gases in anthropogenic systems	0							
1.5 Direct emissions and removals from land use, land use change and forestry	0							
<b>Direct emissions in tonnes of CO2 from biomass</b>	<b>0</b>							
<b>Indirect Emissions in tonnes</b>								
<b>2 Category 2: Indirect GHG emissions from imported energy (3)</b>								
2.1 Indirect emissions from imported electricity	142							
2.2 Indirect emissions from imported energy	N/A							
<b>3 Category 3: Indirect GHG emissions from transportation</b>								
3.1 Emissions from upstream transport and distribution for goods	13							
3.2 Emissions from downstream transport and distribution for goods	N/A							
3.3 Emissions from employee commuting	1043							
3.4 Emissions from client and visitor transport	N/A							
3.5 Emissions from business travels	234							
<b>4 Category 4: Indirect GHG emissions from products used by the organisation</b>								
4.1 Emissions from purchased goods	29809							
4.2 Emissions from capital goods	66							
4.3 Emissions from the disposal of solid and liquid waste	18							
4.4 Emissions from the use of assets	N/A							
4.5 Emissions from the use of services that are not described in the above sub-categories	207							
<b>5 Category 5: Indirect GHG emissions associated with the use of products from the organisation</b>								
5.1 Emissions or removals from the use stage of the product	N/A							
5.2 Emissions from downstream leased assets	N/A							
5.3 Emissions from end of life stage of the product	N/A							
5.4 Emissions from investments	N/A							
<b>6 Indirect GHG emissions from other sources</b>	<b>N/A</b>							
<b>Removals</b>								
Direct Removals in tonnes co2e	0							
<b>Storage</b>								
Total storage as of year end in tonnes co2e	0							

## Appendix D- Uncertainty Statement

In preparing this GHG inventory and report, sources of uncertainty were identified and evaluated in accordance with ISO 14064-1. Uncertainty may arise from activity data (e.g., fuel use, electricity consumption), emission factors, and calculation methodologies. For this inventory:

- **Activity Data:** Metered data (e.g., natural gas and purchased electricity) were obtained from utility bills and internal records. These are considered to have low uncertainty due to reliance on third-party billing data.
- **Emission Factors:** Published national and international emission factors (e.g., DEFRA, Exiobase) were used. While widely accepted, inherent uncertainty exists due to the generic nature of factors and potential regional variation.
- **Extrapolation of Data:** A proportion of employee commuting and working from home emissions were estimated by extrapolating survey data across the workforce; this introduces uncertainty due to assumptions about representativeness and commuting patterns across the group.
- **Spend-Based Method:** A significant proportion of Scope 3 emissions were calculated using the spend-based method, which applies emission factors to the financial value of purchased goods and services. This method introduces a higher degree of uncertainty because:
  - Emission factors are derived from economic input-output models that represent average industry supply chains, rather than supplier-specific data.
  - Prices can vary significantly due to market fluctuations, inflation, and purchasing strategies, which may not correlate directly with the carbon intensity of products or services.
  - The method does not capture regional differences, process-level efficiencies, or supplier-specific practices, which can lead to over- or under-estimation.

While the spend-based method is widely recognized as an acceptable screening tool, it is considered to have high uncertainty relative to activity-based data.

**Improvement actions:** Over time, uncertainty will be reduced by transitioning to activity-based data collection for key categories (e.g., supplier-provided emission data, weight or volume of purchased materials, logistics miles, and primary travel records), prioritizing high-impact suppliers and categories.

A qualitative uncertainty assessment was performed. Overall uncertainty is considered **low to moderate** for Scope 1 and 2 emissions, and higher for Scope 3 due to reliance on estimates and secondary data. This uncertainty does not materially affect the reported total emissions. Continuous improvements in data collection, particularly for Scope 3 categories, will be pursued to reduce uncertainty in future reporting periods.



## Appendix E- Scope 1- Mobile Combustion Data

## Appendix E - Scope 1- Mobile Combustion Data

Company-Wide	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22 22/23	Year 1- FY 23/24	Year 2- FY 24/25	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	55	49	48	41	-14	942080	776375	848210	838542	-103538	356	288	313	338	-18
Petrol	44	39	31	24	-20	742214	771215	639431	455086	-287128	227	223	180	127	-100
Hybrid	8	14	27	30	22	86085	82285	326009	446615	360530	16	16	62	91	75
PHEV	4	5	14	30	26	17155	46904	69438	344986	327831	4	5	8	27	23
Electric	1	1	2	10	9	0	13921	26437	93659	93659	0	0	0	0	0
<b>Total</b>	<b>112</b>	<b>108</b>	<b>122</b>	<b>135</b>	<b>23</b>	<b>1770379</b>	<b>1629875</b>	<b>1909525</b>	<b>2178888</b>	<b>391354</b>	<b>603</b>	<b>532</b>	<b>564</b>	<b>583</b>	<b>-20</b>

GBL	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22 22/23	Year 1- FY 23/24	Year 2- FY 24/25	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	16	13	9	9	-7	232391	166476	152310	280833	48442	90	60	57	113	23
Petrol	6	4	6	2	-4	63486	60245	67841	28789	-34697	25	18	22	11	-14
Hybrid	1	4	8	11	10	1800	36823	69045	168124	166324	0	7	13	34	34
PHEV	0	1	2	4	4	0	0	32086	38220	38220	0	0	4	3	3
<b>Total</b>	<b>23</b>	<b>22</b>	<b>25</b>	<b>26</b>	<b>3</b>	<b>297677</b>	<b>263544</b>	<b>321282</b>	<b>515966</b>	<b>218289</b>	<b>116</b>	<b>85</b>	<b>96</b>	<b>161</b>	<b>46</b>

GBSM	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22 22/23	Year 1- FY 23/24	Year 2- FY 24/25	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	10	7	9	7	-3	235003	137408	166729	126318	-108685	80	51	62	51	-29
Petrol	28	28	22	20	-8	537845	617428	504057	380860	-156985	160	176	140	102	-58
Hybrid	5	7	10	9	4	43263	24766	145089	152044	108781	10	5	28	31	21
PHEV	2	2	6	12	10	17155	46904	11610	164462	147307	2	5	1	13	11
Electric	0	0	0	6	6	0	0	0	43763	43763	0	0	0	0	0
<b>Total</b>	<b>45</b>	<b>44</b>	<b>47</b>	<b>54</b>	<b>9</b>	<b>833266</b>	<b>826506</b>	<b>827485</b>	<b>867447</b>	<b>34181</b>	<b>252</b>	<b>237</b>	<b>231</b>	<b>197</b>	<b>-56</b>

GBCE	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	21	21	24	20	-1	377994	354954	427792	352977	-25017	148	131	159	142	-6
Petrol	0	0	1	1	1	0	0	41090	23609	23609	0	0	11	8	8
Hybrid	2	3	3	3	1	35513	20696	51146	23055	-12458	7	4	10	5	-2
PHEV	0	0	1	3	3	0	0	0	31292	31292	0	0	0	5	5
Electric	0	0	1	2	2	0	0	8523	18587	18587	0	0	0	0	0
<b>Total</b>	<b>23</b>	<b>24</b>	<b>30</b>	<b>29</b>	<b>6</b>	<b>413507</b>	<b>375650</b>	<b>528551</b>	<b>449520</b>	<b>36013</b>	<b>155</b>	<b>135</b>	<b>180</b>	<b>160</b>	<b>5</b>

GBBSM	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	1	2	2	2	1	4209	28737	31425	22324	18115	2	11	12	9	7
Petrol	3	3	0	0	-3	36812	43348	0	0	-36812	13	15	0	0	-13
PHEV	0	0	1	1	1	0	0	0	10412	10412	0	0	0	2	2
Hybrid	0	0	3	4	4	0	0	38012	52386	52386	0	0	7	11	11
<b>Total</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>3</b>	<b>41021</b>	<b>72085</b>	<b>69437</b>	<b>85122</b>	<b>44101</b>	<b>15</b>	<b>26</b>	<b>19</b>	<b>21</b>	<b>7</b>

GROUP	Number of Vehicles					Distance (Miles)					Emissions (tonnes CO2e)				
	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change	Baseline- FY 21/22	Year 1- FY 22/23	Year 2- FY 23/24	Year 3- FY 24/25	Change
Diesel	7	6	4	3	-4	92483	88800	69954	56090	-36393	35	33	24	23	-13
Petrol	5	4	2	1	-4	104071	50194	26443	21828	-82243	29	14	7	6	-23
Hybrid	0	0	3	3	3	0	0	22717	51006	51006	1	0	4	10	9
PHEV	1	1	3	2	1	5509	0	21431	26805	21296	0	0	2	4	4
Electric	1	1	1	2	1	0	13921	17914	31309	31309	0	0	0	0	0
<b>Total</b>	<b>14</b>	<b>12</b>	<b>13</b>	<b>11</b>	<b>-3</b>	<b>202063</b>	<b>152915</b>	<b>158459</b>	<b>187038</b>	<b>-15025</b>	<b>65</b>	<b>47</b>	<b>38</b>	<b>43</b>	<b>-23</b>



## Appendix F- SBTi Target Setting

## Science-Based Target Setting Tool

Version: Version 2.2

Support: [info@sciencebasedtargets.org](mailto:info@sciencebasedtargets.org)

### Section 1. Input data

Target setting method	Absolute Contraction Approach	<i>This approach is not applicable to power generation emissions</i>
SDA scenario	Not applicable	
SDA sector	Not applicable	
Base year	2022	Select a base year
Base year   Activity output	554	tCO2e
Base year   Scope 1 emissions	0	tCO2e
Base year   Scope 2 emissions		
Target year	2030	Select a target year
Target year   Type of activity projection		
Target year   Activity output		
Most recent year (MRY)	2023	Select most recent year of available emissions&activity data
MRY   Scope 1 emissions		tCO2e
MRY   Scope 2 emissions		tCO2e

[Please see results in Section 3 below](#)

### IMPORTANT NOTICE:

This Tool is intended to support companies in their modeling of science-based emissions reductions targets, as well as to assist companies and interested third parties in assessing and evaluating companies' targets. However, to be approved by the Science Based Targets initiative, companies need to make sure their target(s) fulfill the SBTi criteria. Please review the SBTi Step by Step guide to access the latest criteria and resources: <https://sciencebasedtargets.org/step-by-step-guide/>

Also please note that the SBTi assesses "forward-looking" ambition of target(s) by using the year the target is submitted to the initiative (or the most recent GHG inventory). For further information, consult the SBTi Target Validation Protocol: <https://sciencebasedtargets.org/resources/files/Target-Validation-Protocol.pdf>

Please help us improve this tool by reporting issues related to functionalities and formatting.

#### Update notification:

**Please note that as of July 15th 2022, SBT Tool versions 1.2.2 and earlier are no longer supported. For clarifications on tool version eligibility please contact [info@sciencebasedtargets.org](mailto:info@sciencebasedtargets.org).**

### Section 3. Absolute Contraction Approach

#### 1.5 degree scenario (1.5C)

[Review all target modelling data](#)

	Base year (2022)	Most recent year (2023)	Target year (2030)	% Reduction to date	% FLA Adjustment	% SBT reduction
Scope 1 emissions (tCO2e)	554	---	321	---	Not required	42.0%
Scope 2 emissions (tCO2e)	0	---	0	---	Not required	0.0%
Scope 1+2 emissions (tCO2e)	554	---	321	---	---	42.0%



# Science-Based Target Setting Tool

Version: Version 2.2  
Support: [info@sciencebasedtargets.org](mailto:info@sciencebasedtargets.org)

## Section 1. Input data

Target setting method	Economic intensity	<i>Please review the latest version of the SBTi Guidance and Criteria</i>
Base year	2022	<i>Dropdown</i>
Target year	2030	<i>Dropdown</i>
Base year output	33	<i>\$ value added</i>
Target year output		
Scope 3 emissions (total or specific categories)	19,527 0.0	tCO2e

## Section 3. Economic intensity targets

	Base year (2022)	Target year (2030)	% SBT reduction
Economic intensity (tCO2/unit value added)	587.0	284.1	51.6%