

KDM Group

Carbon Reduction Plan



Commitment to achieving Net Zero

KDM Group is committed to achieving Net Zero emissions by 2040.

Emissions Footprint

Emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions.

Baseline emissions are the reference point against which emissions reduction can be measured.

Baseline Year Assessment: 1 st June 2021 to 31 st May 2022										
This Assessment: 1st June 2023 to 31st May 2024										
This is KDM Groups second year report on emissions.										
Emissions	Base Line Year	2 nd Year	3 rd Year	4 th Year	5 th Year	6 th Year	7 th Year	8 th Year	9 th Year	10 th Year
Scope 1:	100	104	130							
Scope 2:	54	58	39							
Scope 3: (Included Sources)	708	570	559							
Total (tCO2e) Emissions:	862	732	729							

Emissions reduction targets

Committed to working towards Net Zero.

In line with the data & reduction methods noted within this plan KDM Group anticipates being Net Zero by Jan 2040.

Assessment carried out on behalf of KDM Group by Tunley Environmental

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Executive Summary

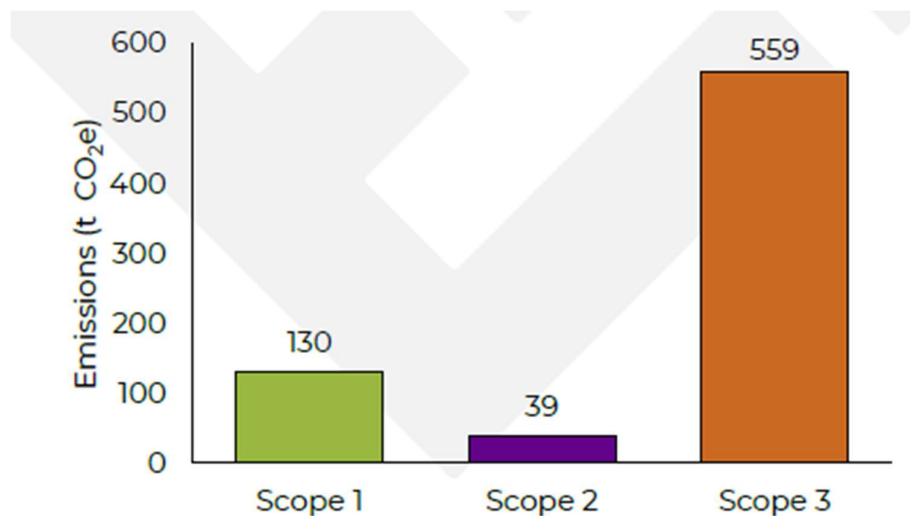
KDM Group (hereafter, KDM) would like to report on the carbon emissions for assessment year between the 1st June 2023 and the 31st May 2024. Quantifying their business carbon emissions puts KDM in a position to demonstrate sustainability and environmental responsibility to their customers and the wider public. It allows KDM to show how a measurable change can be made to climate change emissions and facilitate the achievement of Net-Zero Carbon (NZC). KDM and Tunley Environmental have collaborated to identify emission sources and collect data.

Tunley Environmental has conducted an independent assessment to quantify carbon emissions due to business activities conducted by KDM and their contractors, based on the data provided by KDM. The evaluation herein reported includes two components of emission quantifications for:

- The company's business activities in 2023-2024. This first component evaluates carbon emissions from their emissions in Scopes 1, 2 and 3,
- A roadmap to Net-Zero Carbon (NZC) based on data of the quantification year and previous baseline year data. This will act as a guidance for KDM to minimise their carbon footprint resulting from their business activities.

This assessment demonstrates KDM's commitment to showing how carbon emissions can be reduced. It also provides KDM and its customers with a clear evaluation of carbon emissions associated with these business practices and aligns with KDM's ambition for achieving carbon neutrality.

Total carbon emissions in tonnes of carbon dioxide equivalents (t CO₂e per annum) are 729 t CO₂e (Figure 1).



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Emission Data

Scope 1 makes up 17.9% of the total emissions, releasing 130 t CO₂e of direct emissions in the assessment year (Table 1). The total Scope 2 emissions were 39 t CO₂e (5.4%). Remaining emissions were quantified at 76.7% of the total footprint, this was from indirect emissions categorised in Scope 3. In total, the carbon footprint in the assessment year was calculated to be 729 t CO₂e.

Table 1 further provides a comparative analysis of emissions across the years 2022, 2023, and 2024. While Scope 1 emissions increased from 100 t CO₂e in 2022 to 130 t CO₂e in 2024, showing a rise of 30 t CO₂e, Scope 2 emissions decreased by 14 t CO₂e over the same period, from 54 t CO₂e to 39 t CO₂e. The most notable reduction was observed in Scope 3 emissions, which dropped from 709 t CO₂e in 2022 to 559 t CO₂e in 2024, reflecting a reduction of 150 t CO₂e. As a result, total emissions decreased from 862 t CO₂e in 2022 to 729 t CO₂e in 2024, marking a total reduction of 134 t CO₂e.

These emission reductions occurred alongside positive economic growth, with turnover increasing from £30 million in 2022 to £44 million in 2024. This improvement in efficiency is further evidenced by the reduction in the carbon intensity ratio from 29 t CO₂e /£ m to 17 t CO₂e /£ m. These results highlight a positive trajectory toward achieving sustainable operations and reducing the organisation's overall carbon footprint.

Table 1.

Summary of emissions across Scopes 1, 2, and 3 for the periods 2022-2023 and 2023-2024, compared to the 2021-2022 baseline assessment. Annual emissions for KDM are categorized according to The Greenhouse Gas Protocol Scopes, alongside Carbon Intensity Ratios.

Emission Scope	2022 Emissions (t CO ₂ e)	2023 Emissions (t CO ₂ e)	Audit 2024 Emissions (t CO ₂ e)	Change in Emissions 2022-2024 (t CO ₂ e)
1	100	104	130	30
2	54	58	39	-14
3	709	570	559	-150
Total	862	732	729	-134
Turnover (£ m)	30	40	44	14
Intensity Ratio t CO ₂ e/£ m	29	18	17	-12

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GHG Emissions Categories

Figure 3 provides the emissions for KDM from 1st June 2023 to the 31st May 2024. The largest emissions category quantified 407 t CO₂e under purchased goods and services (S 3.1). The second highest source of emissions was 123 t CO₂e from Business travel (S 3.6).

Table 2 highlights critical trends in emissions across Scopes 1, 2, and 3, presenting both progress and areas of concern. Notably, purchased electricity (S 2.2) has seen a significant reduction of 27% from the baseline, indicating successful efforts toward energy efficiency and renewable energy adoption. Similarly, emissions from waste generated in operations (S3.5) have decreased by 77% compared to the baseline, reflecting effective waste management practices. However, emissions from mobile combustion (S1.2) have risen by 37% since the baseline, caused by an increase in fuel usage by transportation, while business travel (S3.6) continues to be a notable contributor, rising by 194% from the baseline.

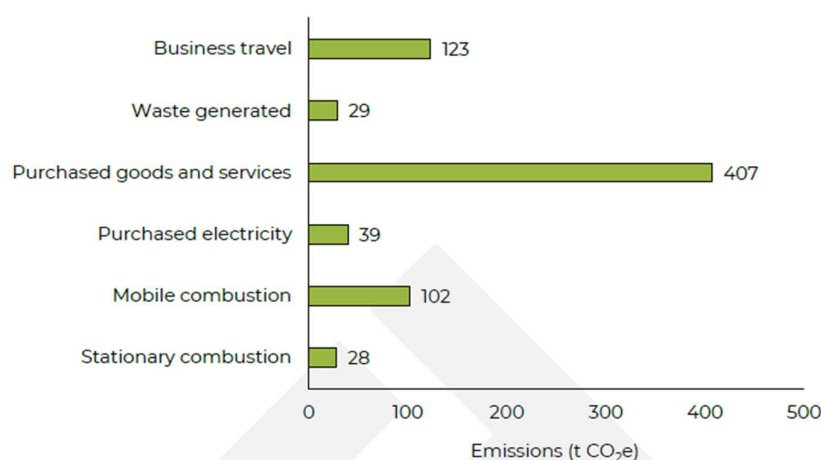


Figure 3. Graphical representation for the quantified emission categories (GHG Protocol) for KDM from 1st June 2023 to the 31st May 2024

Table 2. Summary of emissions in three scopes for 2023-2024 business carbon assessment compared to the previous years' assessments, the baseline carbon assessment in 2021-2022 and the re-audit in 2022-2023.

Scope	Category	Baseline 2022 Emissions (t CO ₂ e)	Re-Audit 2023 Emissions (t CO ₂ e)	2nd Re-Audit 2024 Emissions (t CO ₂ e)	Change in Emissions 2022-2024 (t CO ₂ e)	% Change from baseline 2022 to 2024
S1.1	Stationary combustion	25.2	25.1	27.9	2.72	11%
S1.2	Mobile combustion	74.7	79.7	102	27.6	37%
S2.2	Purchased electricity	53.6	57.9	39.3	-14.6	-27%
S3.1	Purchased goods and services	532	371	407	-134.71	-25%
S3.5	Waste generated in operations	125	31.1	28.8	-96.1	-77%
S3.6	Business travel	41.9	168	123	81.2	194%

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Purchased Electricity - Market & Location Based

The emissions from purchased electricity at facilities are dual reported following GHG Protocol guidance using both location-based and market-based. The location-based method uses the average emissions intensity of the grid where the electricity is consumed, regardless of the source or contract of the electricity. The market-based method uses the emissions factor of the specific electricity supplier or product that the organisation has chosen to purchase. For KDM's total carbon footprint, the market-based emissions were opted to be reported.

Table 3 presents emissions associated with electricity use for Dalgety Bay and Warrington, using both location-based and market-based methodologies. Dalgety Bay recorded electricity usage of 236,710 kWh, resulting in emissions of 49.0 t CO₂e under the locationbased approach and 27.5 t CO₂e under the market-based approach. Warrington, with electricity usage of 64,914 kWh, reported emissions of 13.4 t CO₂e for location-based and 11.9t CO₂e for market-based. The total emissions are 62.4 t CO₂e for location-based and 39.4 tCO₂e for market-based calculations.

Table 3: Comparison of Location-Based and Market-Based Emissions in current assessment year.

	Location Based		Market Based	
	Dalgety Bay	Warrington	Dalgety Bay	Warrington
Electricity Used (kWh)	236,710	64,914	236,710	64,914
Emission Factor (kg CO ₂ e/kWh)	0.207	0.207	0.116	0.183
Emissions (t CO ₂ e)	49.0	13.4	27.5	11.9
Total Emission (t CO₂e)	62.5		39.3	

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Purchased Goods and Services -Granularity

Purchased Goods and Services represents the largest contributor of KDM's carbon footprint for 2023/2024, accounting for 407 t CO₂e, 55.8% of the company's total emissions. This reflects a decrease of 134.7 t CO₂e compared to the baseline year 2021/2022.

Figure 4 depicts the granularity of KDM's purchased goods and services, highlighting timber as the main contributor, with emissions of 138 t CO₂e.

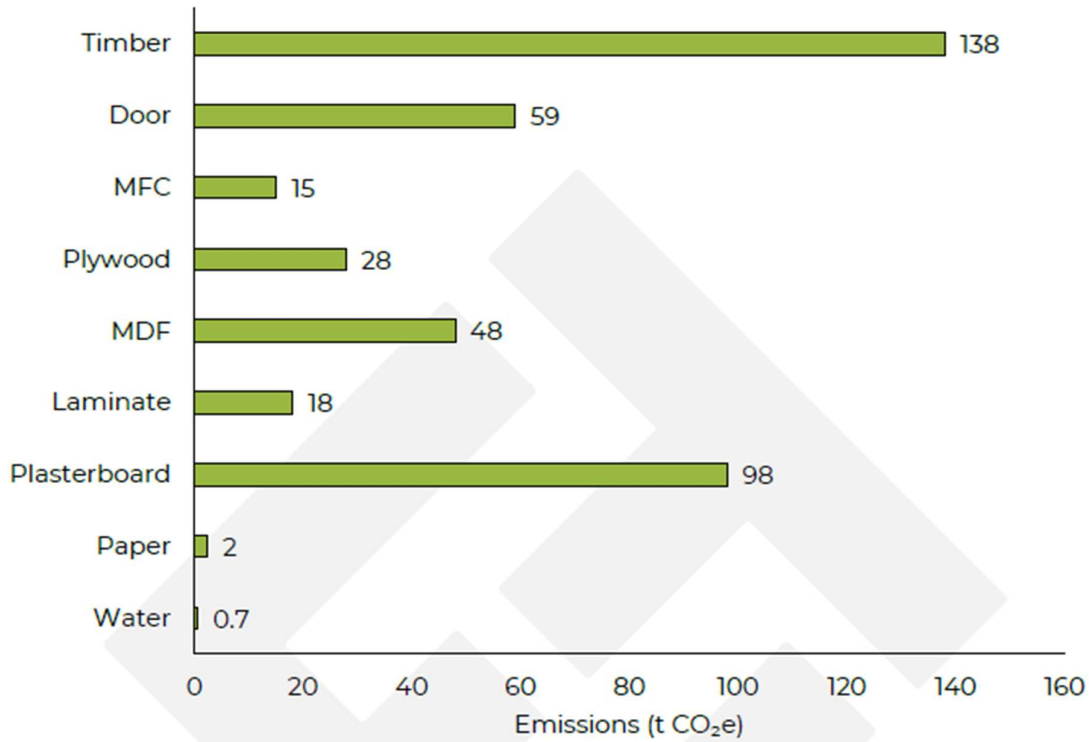


Figure 4. Emissions for purchased goods and services in current assessment year.

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Biogenic Carbon Storage in Harvested Wood Products

Following ISO14064-1 methodologies carbon stocks – carbon (C) stored in GHG reservoirs – are reported separately. This includes harvested wood products such as those produced by KDM. Therefore, the carbon sequestration of all purchased wood in the baseline period is quantified at 1,211 t CO₂e. The carbon sequestration from board products (MDF, plywood, door blanks and MFC) and timber products is shown in Figure 5. with both FSC sourced and non-FSC sourced materials.

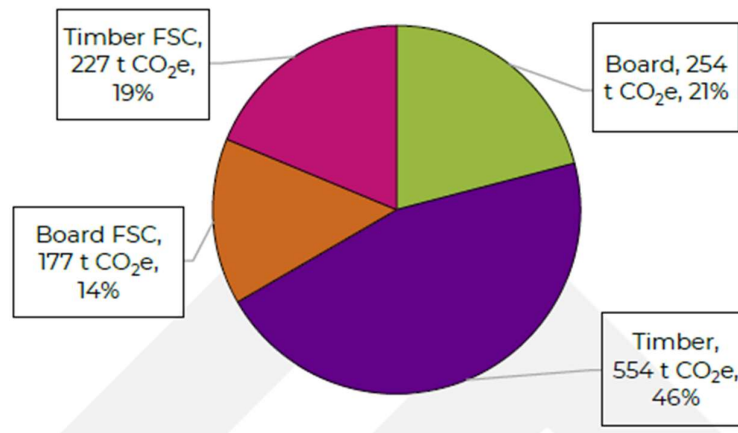


Figure 5. Carbon sequestration of harvested wood products in tonnes of carbon dioxide equivalents (t CO₂e).

Forest Stewardship Council (FSC) Wood Products

FSC are pioneers withing forest certification. Purchasing FSC certified products reduces the degradation, destruction, or alternation of woodlands. FSC claim that certified woodlands store at least 30% more carbon compared to other forests. There are four main values which are integrated with FSC certified woodlands covering not only environmental but also economic and social benefits:

1. Zero deforestation – no net loss of forest is ensured over time.
2. Environmental protection – biodiversity of forests are maintained, and high conservation areas are untouched.
3. Indigenous peoples rights respected – forest inhabitants are consulted and engaged to maintain their cultural rights.
4. Fair wage and work environment for workers – all forestry workers are given decent wages, as well as required training and safety equipment.

KDM have made significant efforts towards procuring more FSC certified wood products in recent years. This increased usage of FSC certified material is commendable and noteworthy not only from an environmental perspective.

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Strategic CO₂e Reduction Initiatives

KDM will implement a long-term approach on carbon reduction. GHG emissions can be reduced by 36% through implementing reduction strategies that focus on emission sources of significant contributions by 2035. Once the initiatives have been considered and taken, any unavoidable, remaining emissions can be removed by carbon off-setting actions (by 2040) (Figure 6) (This section provides KDM with GHG reduction initiatives.

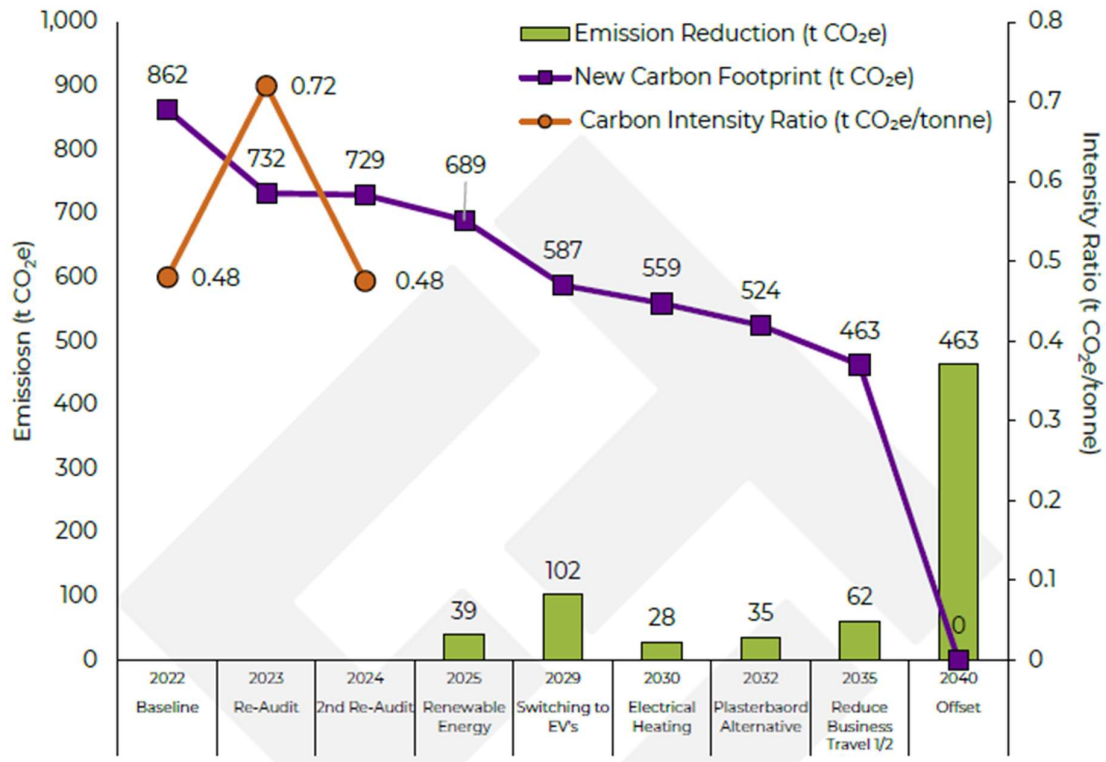


Figure 6. Roadmap to NZC for Scope 1, 2 & 3 emissions by 2040.

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Using Renewable Electricity - 2025

Purchased electricity contributed 39 t CO₂e under the market-based approach, demonstrating room for further improvements. KDM can switch to use renewable electricity by opting for an Ofgem certified green electricity tariff (Renewable Energy Guarantees of Origin, REGO). The best way to choose a renewable electricity tariff is by using comparison websites and assessing the renewable origin guarantee information provided. At present, most electricity suppliers offer at least one 100% renewable electricity option.

Implementing a green electricity tariff will reduce emissions by 39 t CO₂e per year.

Switching to EVs - 2028

Switching the company owned fleet to electric vehicles could reduce emissions by 102 t CO₂e per annum. This should be considered at the end of the useful life of vehicles as to mitigate the impact of embodied carbon.

Using Electric Heating - 2030

Once electricity has been supplied from renewable sources, switching to electric heating can significantly lower the emissions of the company by 28 t CO₂e per year. Strategies to incorporate this include heat pumps, electric combi-boilers, or far infrared heating panels.

Sourcing Alternative Plasterboard Products - 2032

Moving forward alternative building materials with lower carbon emissions associated with their production are being produced. When reasonable for KDM they will be able to substitute its current products with these more sustainable alternatives. We predict that this replacement will reduce emissions by at least 18 tCO₂e annually if actioned upon.

Reducing Business Travel - 2035

Business travel is a notable contributor to KDM's emissions, despite a notable 27% reduction from 2023 to 2024, highlighting efforts made to curb travel-related impacts. To achieve further reductions, it is recommended that 50% of in-person meetings currently requiring business travel be replaced with virtual alternatives, such as Teams meetings. This shift could result in an additional emissions reduction of up to 62 t CO₂e. Implementing this strategy through internal company policy changes would not only support the company's sustainability goals but also set an example for other businesses on their own sustainability journeys.

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Offsetting

Although the pinnacle objective of decarbonisation is to minimise emissions, the practicality of achieving this for every emission source may not always be plausible. In these instances, offsetting against the carbon emissions is necessary. Therefore, the remaining carbon emissions will have to be offset with bona fide suppliers. Consequently, Tunley recommends all offsets be purchased from OneTribe (<https://onetribeglobal.com/>). To offset against the emission for the whole period of 729 t CO₂e at a cost of £18/t CO₂e would cost a total of £13,122. If these reduction opportunities were undertaken the predicted remaining 463 t CO₂e could be offset at a cost of £8,334.

Conclusion

The total GHG emissions for KDM's business activities in between the 1st June 2023 and the 31st May 2024 is 729 t CO₂e. This led to an overall reduction in total emissions by 134 t CO₂e, from 862 t CO₂e in 2022, the baseline assessment year, to 729 t CO₂e in 2024. Remarkably, this reduction in emissions was achieved alongside a robust increase in turnover, which rose from £30 million to £44 million. The carbon footprint quantification presented in this report was conducted using data provided to Tunley Environmental by KDM. Tunley Environmental assessed the quality of the data and collaborated with KDM to continuously enhance this.

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Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off as detailed below.

Approval Sign Off	
Signature:	
Name:	Mark Jones
Role/Position:	Executive Director
Signed Date:	14/01/2025
Next Review Date:	15/01/2026