Carbon Reduction Plan

Current Reporting Year 2023 - 24

The Clean Tech Business Group ltd

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1. Introduction

The P&A Group of companies is committed to environmental sustainability, achieving Net Zero Carbon within its own activities, and to seeking carbon reductions within its inward and outward supply chains.

This carbon reduction report presents our Carbon Footprint, as of 2023-24. This is both our Current Reporting Year, and our Baseline Year – the first year we commenced carbon reporting across all aspects of the Group, and across all emissions Scopes.

We have committed to achieving Net Zero Carbon within our own activities by 2035 (the use of biomass excepted), far in advance of the UK Government commitment to 2050.

This report describes the practical actions we will take to achieving that.

We have used an external specialist to conduct our carbon reporting as we feel this gives the process greater credibility and transparency, and access to advice and support for our Net Zero journey.

2. What we've already done

Sustainability has been at the core of P&A Group for years. To date, we have:

2.1 Biomass Fuel

We have eliminated fossil fuels for our heating needs by installing biomass (wood chip) boilers in all our premises, fuelled by scrap wood arising from our pallets business.

- Carbon avoided in 23-24– c. **173 tonnes** CO2e a year

2.2 Solar PV

We have installed solar PV panels where possible to most of our buildings.

- Carbon avoided in 23-24– c. **41 tonnes** CO2e a year

2.3 Pallet Repair

We offer, and promote, new pallets made from used wood (Tree Saver Pallets), and a pallet repair service. These actions support the Net Zero ambitions of our customers.

- Each Tree Saver, and repaired pallet avoids around **3.2 kg** of CO2 (depending on size), a 52% reduction compared to a pallet made from virgin wood.

3. Carbon Reporting Methodology

3.1 Scope

The business activities we are reporting on are

- P&A Pallets and Packaging (including Group administration and management)
- Zest Outdoor Living
- Woodworks Garden Centre and Café

We have used an external expert to conduct our carbon measurement and advise on our reduction strategy. The emissions we have measured are:

- Road Fuel
- Heating Fuel
- Electricity
- Staff Commuting
- Pallet production materials use
- Products supplied and sold through the Wood Works Garden Centre and Café
- Timber products supplied to Zest
- Transport in products supplied to Zest
- Water use and disposal
- Waste

We have **not** measured what we consider would be very minor Scope 3 emissions such as:

- Letter postage
- Accountancy and legal services.
- Office consumables.

All calculations have been based upon the UK Government Green House Gas reporting conversion dataset, 2023.

3.2 Annual Reporting Protocol

We will measure our carbon emissions annually, starting from this, our Baseline Year 2022.

Subsequent Annual Reports will compare progress against the baseline year, and against interim targets in 2025 and 2030.

3.3 Carbon Intensity Metric

Our business has ambitious growth plans. As businesses grow and contract, so can their total Carbon emission. For example, the development of a larger production facility, or expansion of retail facilities would increase our use of heat and power, and staff head count, thus potentially skewing measurement of progress against carbon reduction against target.

For this reason, we adopt an intensity metric, and in our case, we use tonnes CO2e per £100,000 of turnover.

4. Carbon Emissions by Activity, 2023-24

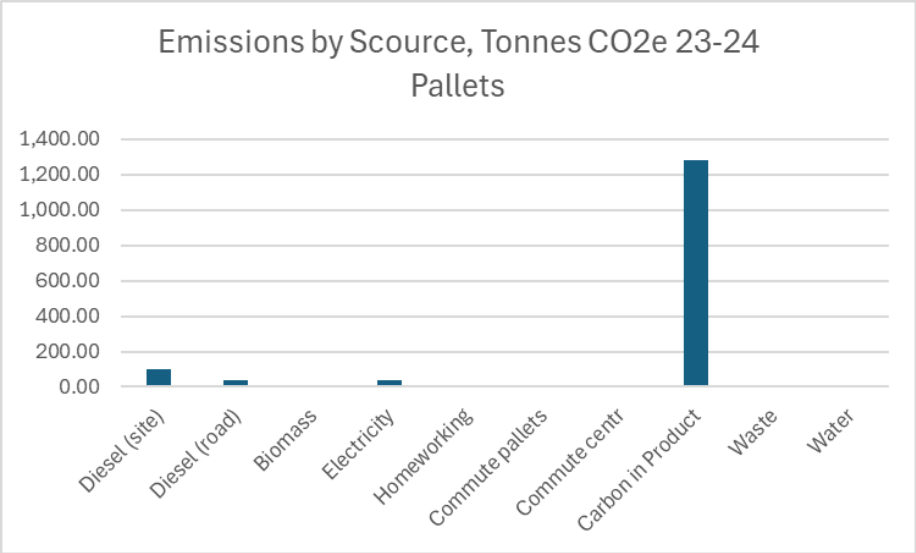
4.1 Pallets

4.1.1 Emissions by Scope 23-24

	Tonnes CO2e
Scope 1	142.53
Scope 2	40.96
Scope 3	1,302.44
Total	**1,485.94**

4.1.2 Emissions by Source23-24

P A Pallets	**Tonnes CO2e**	**Scope**
Diesel (site)	97.72	1
Diesel (road)	39.65	1
Biomass	5.17	1
Electricity	40.96	2
Homeworking	0.90	3
Commute pallets	13.27	3
Commute central	4.05	3
Carbon in Product	1,283.51	3
Waste	0.13	3
Water	0.58	3
Total	**1,485.94**	



4.1.3 Carbon Intensity

	23-24
Tonnes CO2e per £100k turnover	35.64

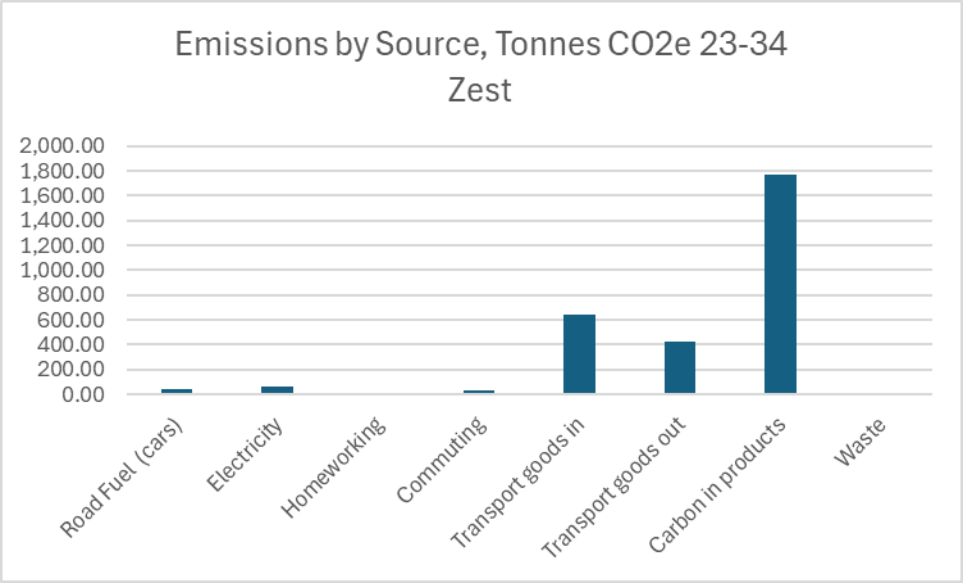
4.2 Zest Outdoor Living

4.2.1 Emissions by Scope 23-24

	Tonnes CO2e
Scope 1	46.70
Scope 2	59.99
Scope 3	2,872.69
Total	2,979.38

4.2.2 Emissions by Source 23-24

Zest	**Tonnes CO2e**	Scope
Road Fuel (cars)	46.70	1
Electricity	59.99	2
Homeworking	0.86	3
Commuting	31.85	3
Transport goods in	645.44	3
Transport goods out	421.07	3
Carbon in products	1,773.34	3
Waste	0.13	3
Total	**2,979.38**	



4.2.3 Carbon Intensity

	23-24
Tonnes CO2e per £100k turnover	33.22

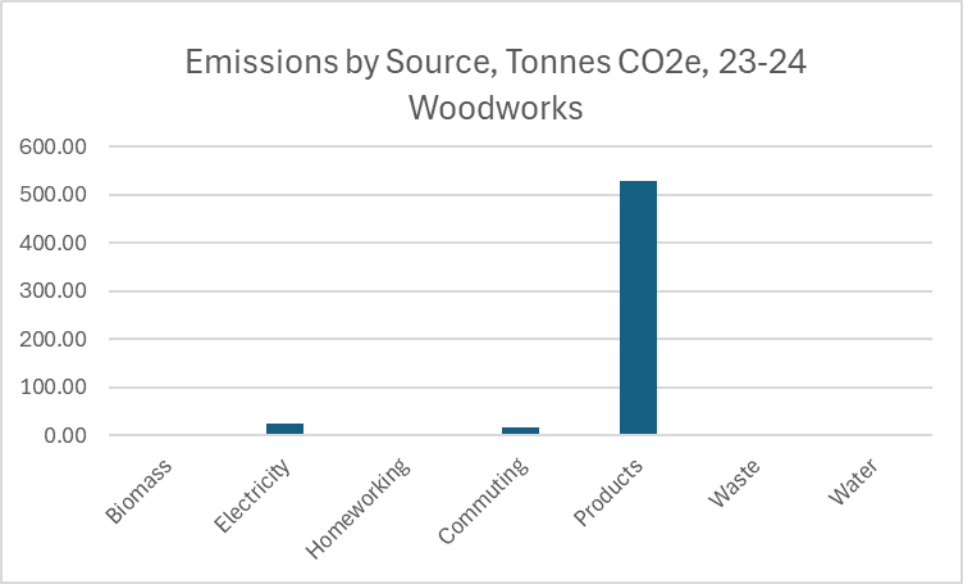
4.3 Woodworks Garden Centre and Cafe

4.3.1 Emissions by Scope 23-24

	Tonnes CO2e
Scope 1	4.66
Scope 2	25.03
Scope 3	546.93
Total	**576.62**

4.3.2 Emissions by Source 23-24

Woodworks	**Tonnes CO2e**	**Scope**
Biomass	4.66	1
Electricity	25.03	2
Homeworking	0.01	3
Commuting	16.79	3
Products	529.43	3
Waste	0.13	3
Water	0.58	3
Total	**576.63**	



4.3.3 Carbon Intensity

	23-24
Tonnes CO2e per £100k turnover	117.19

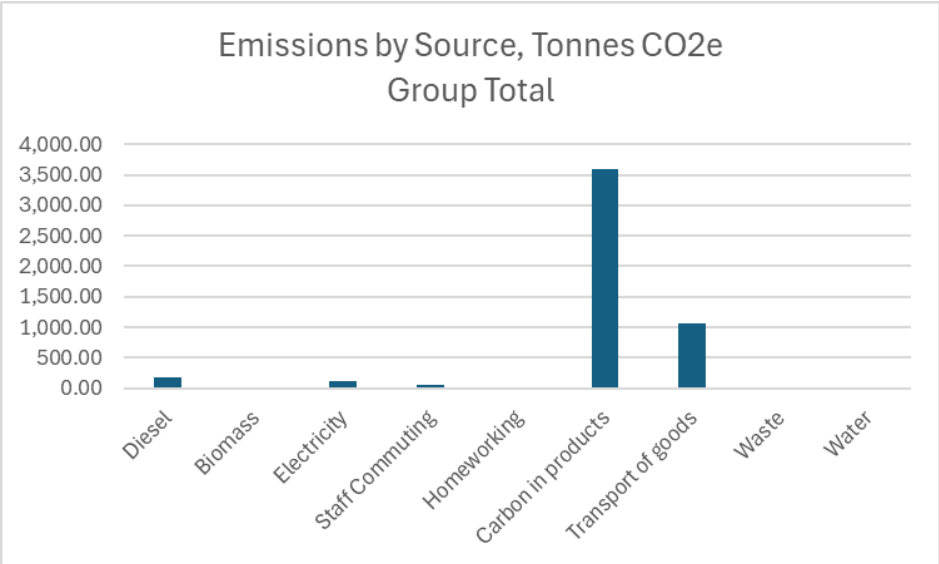
4.4 Group Totals

4.4.1 Emissions by Scope 23-24

	Tonnes CO2e
Scope 1	193.89
Scope 2	125.99
Scope 3	4,722.07
Total	5,041.94

4.4.2 Emissions by Source 23-24

	Tonnes CO2e	**Scope**
Diesel	184.06	1
Biomass	9.83	1
Electricity	125.99	2
Staff Commuting	65.96	3
Homeworking	1.78	3
Carbon in products	3,586.28	3
Transport of goods	1,066.51	3
Waste	0.38	3
Water	1.16	3
TOTAL	**5,041.94**	



4.4.3 Group Carbon Intensity

	23-24
Tonnes CO2e per £100k turnover	36.99

5. Our Group Carbon Reduction Plan

Our journey to Net Zero Carbon is phased into Short, Medium and Long term actions.

5.1 Short Term- 2025

- LED lighting upgrade

We have upgraded some of our lighting to low energy LEDs, but there remains a large number of older style lights. We will upgrade all remaining lighting within this period.

We estimate that this will reduce our electricity demand by 5%.

- Biodiesel (HVO)

Biodiesel, made from waste vegetable oil, is a sustainable alternative to mineral diesel, and delivers CO2 reductions of around 95%. There is a small price penalty for this product, but nevertheless, we will consider its suitability for use to replace a proportion of our mineral diesel use, until such a time as all diesel vehicles are replaced with an electric equivalent.

- Diesel Fuel Additive

We have been introduced to a diesel fuel additive which, according to external testing and real-world trials, may reduce fuel consumption by up to 10%, as well reducing NOx and particulate pollution from our diesel fuelled vehicles and wood chipper. We will conduct a long term trial of this additive.

We estimate that this will reduce our diesel fuel consumption by 5-8 %.

- Road Fuel

The remainder of our cars, used for business purposes, will be fully electric.

We estimate that this will reduce our emissions from road fuel by a further 20 %.

- Primary Product Suppliers

As is evident, our greatest carbon emission arises from the production and distribution of the products we sell. We have a stepped approach to engaging our supply chain:

1. By end 2025 - Survey all of our product suppliers to determine whether they report their carbon emissions generally, and whether they are capable of reporting the emissions specific to the products and quantities they supply to us.
2. By end 2026 - For those that don't / can't, engage with them by explaining the importance to P&A Group of supporting the movement towards Net Zero Carbon.
3. By end 2028 - Begin to use the existence or otherwise of supplier Carbon Reduction Plans to inform purchasing decisions.
4. By 2030 - Begin the use comparative reported product carbon emissions to inform purchasing decisions.

5.2 Medium Term- 2030

- Road Fuel

By 2030, all cars and vans used for business purposes will be fully electric.

We estimate that this will reduce our emissions from road fuel by 30% (in addition to the 20% identified in Short Term).

- Staff Commuting

How staff travel to work is out of our direct control, but we will encourage and incentivise the switch to fully electric and plug-in hybrid cars by installing and making available workplace car charging points.

- Wood Chipper

Our diesel powered wood chipper is an integral part of our operation as a means of recycling into boiler fuel wood which cannot be reused.

In this period, we will investigate options for it's replacement with an electrically powered equivalent. We are aware that there may be some electricity network capacity constraints in this respect, however, we will pursue this option.

As an interim measure, we will investigate the viability of biodiesel.

We estimate that electrification will reduce our emissions from diesel fuel by 15 %

- Pallet Embedded Carbon

In order to reduce our Scope 3, Supply Chain emissions, we will continue to promote and encourage the uptake of our Tree Saver pallets, and pallet return and repair service. Our planned trajectory for this is under development at present.

5.3 Long Term – 2035

- Road Fuel

By 2035, we will have replaced our diesel HGVs with fully electric equivalents, and therefore eliminated diesel emissions from road fuels.

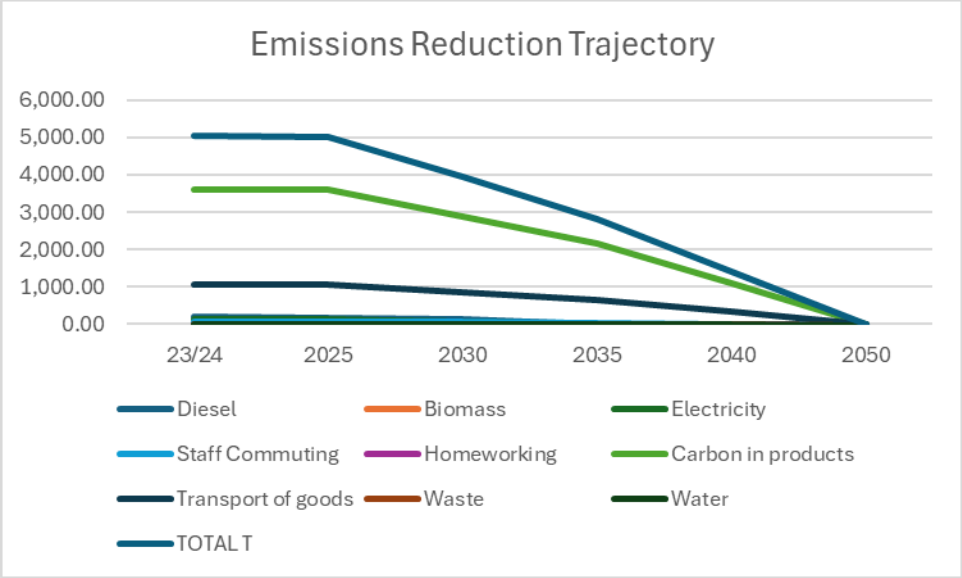
- Electricity

The UK Government has committed to fully decarbonising electricity supply by 2030. This is ambitious. We have taken a precautionary view, and assumed that this completes within the period 2030-25, and that therefore, our emissions from electricity will be zero by 2035.

5.4 Group Carbon Reduction Trajectory

By following the Action Plan above, we can forecast that our emissions will reduce according the following trajectory:

	23/24	2025	2030	2035	2040	2050
Diesel	184.06	165.66	124.24	0.00	0.00	0.00
Biomass	9.83	9.83	9.83	9.83	9.83	9.83
Electricity	125.99	113.39	56.69	0.00	0.00	0.00
Staff Commuting	65.96	62.67	47.00	23.50	0.00	0.00
Homeworking	1.78	1.78	1.33	0.67	0.33	0.00
Carbon in products	3,586.28	3,586.28	2,869.02	2,151.77	1,075.88	0.00
Transport of goods	1,066.51	1,066.51	853.21	639.91	319.95	0.00
Waste	0.38	0.22	0.22	0.22	0.11	0.00
Water	1.16	0.01	0.01	0.01	0.00	0.00
TOTAL Tonnes	**5,041.94**	**5,006.33**	**3,961.56**	**2,825.90**	**1,406.11**	**9.83**



6. Director's signature

Signed: A.Baker

Position: Managing Director

Date : 11th April 2025