EZOO - NET ZERO BY 2030

EZOO’s carbon footprint for 2022-2023

Barnaby King

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Appendixx

1. Introduction

As car ownership changes, fuel prices continue to rise – and with manufacturers filling the forecourts with new EV models fresh off the production line, now is the time to make the switch to electric power.

In 2012, EZOO founders Lash and Charnjit Saranna made that very same switch – bringing with them almost 30 years of automotive experience that included building Europe's largest independent Porsche centre.

From day one, the goal has been to bring awareness and education around the switch from combustion to electric, to create what EZOO prides itself on today – Pay As You Go Electric.

Affordable, flexible, and customisable, our Pay As You Go electric car subscription service is built to make the shift to electric power as easy as possible.

Choose your car. Choose your term. Deliver to your door.

It's a system built to remove those long waiting times. We want to make the switch to EV straightforward, so we choose to deal with the insurance, maintenance and road tax ourselves, saving our customers the hassle.

EZOO is a family business. Our system is run online – but if that's not for you, or you're not sure what the subscription entails, or perhaps you just want to learn more about electric cars, a member of our team will be on hand to guide you.

Every car in our fleet, we've driven ourselves – which means we've become experts in what we offer.

EZOO was set up to tackle climate change and local air pollution. We want to ensure that our business operations have as little impact on the environment as possible. To demonstrate this commitment, we plan to become a net-zero by 2030 company and have signed up with Pledge to Net-Zero. This report details our baseline carbon footprint and the targets which have been set for Scope 1, 2 and 3. It has been written by Barnaby King, a sustainability consultant who has been commissioned by EZOO to support their journey to Net Zero.

2. Net zero ambitions and business goals

Avoiding irreversible and catastrophic climate change is one of EZOO's core aims and guides all their activities. EZOO has three clear business goals for setting net-zero targets:

1. Identify and implement initiatives that reduce their carbon footprint, and increase organisational efficiency
2. Be recognised as a company that cares about the environment and is taking a proactive approach towards it
3. Encourage other companies to follow suit.

These business goals will be used as a guide to prioritise emissions reduction initiatives in the drive to attain the newly created targets.

3. Carbon footprint 2022 /2023

a. Summary

2022/2023 was the first year that all electricity consumed at the Coventry office was purchased from Good Energy, and therefore, was zero carbon. However, electricity consumed offsite to charge vehicles increased significantly. Therefore, carbon emissions from electricity consumption increased by nearly 30%, as shown in the calculations further in this report. Natural gas consumption at the office was reduced by 25% over the same period, and therefore, the total scope 1 and 2 (natural gas and electricity) emissions dropped 10% in the reporting year (2022/2023) compared to the previous reporting year.

Scope 3 emissions (supply chain and customer emissions) were significantly increased compared to the previous reporting year. This was due to a significant increase in customer mileage and the purchase of new EVs. Scope 3 emissions accounted for over 95% of EZOO's carbon footprint in 2022-23 they are also difficult to accurately calculate. For example, Tesla recently released a report concluding that their supply chain emissions were 50% larger than other estimates. This has a significant impact on the carbon payback of electric vehicles and must be watched closely. This highlights the importance of monitoring scope 3 emissions. (supply chain and customer emissions) and doing everything possible to reduce these.

As EZOO continues to grow it may be unfeasible to continue to compare absolute emissions year on year. It may be more sensible in subsequent years to report on some form of levilised carbon emissions. For example, carbon emissions per vehicle in the fleet, or per customer mile. To explain this further, EZOO’s total annual carbon footprint may grow in coming years as they increase office space and fleet vehicles. This is not a fair comparator with previous years, because they leased significantly more vehicles. Offsetting emissions of other car lease, or rental companies. Therefore, the emissions per customer mile may make a more sensible comparator.

b. Full carbon accounting for 2022-23

Category	Description	22/23 (kg CO_2e)	20/21 (kg CO_2e)	Percentage change
Total scope 1 and 2 emissions		**4,153**	**4,672**	**-11.1%**
Scope 1 emissions	**Total**	**2,793**	**3,604**	**-22.5%**
Stationary combustion	Boiler for space heating in office	2,793	3,604	-22.5%
Scope 2 emissions	**Total**	**1,360**	**1,068**	**27.3%**
Consumption of purchased electricity	Offsite EV charging	-	655	-100.0%
Consumption of purchased electricity	Electricity used at the office	1,360	413	229.3%

Category	Description	22/23 (kg CO_2e)	20/21 (kg CO_2e)	Percentage change
Scope 3 Emissions (Within Boundary)[1]	**Total**	**95,577**	**50,497**	**89.0%**
1. Purchased goods and services	**Total**	**11**	**6**	**100%**
	Water	11	6	100%
2. Capital goods	**Total**	**1,246,055**	**1,085,400**	**15%**
	EV (batteries)	661,055	582,900	13%
	EV (Rest of car)	585,000	502,500	16%
3. Fuel and electricity-related activity	**Total**	**1,511**	**624**	**142%**
	WTT- generation	1,009	417	142%
	WTT- (T&D)	92	38	142%
	T&D losses	410	169	142%
4. Upstream distribution and transportation	**0**	**-**	**-**	
5. Waste Generated in operations	**Total**	**148**	**137**	**8%**
	Office waste	127	127	0%
	Water	21	10	100%
7. Employee commuting	**Total**	**5,037**	**62**	
13. Downstream leased assets	**Customers use of EVs**	**88,871**	**49,730**	**-%**
Scope 3 Emissions (Outside boundary)[2]	**Total**	**1,246,055**	**1,085,400**	**15%**
2. Capital goods	**Total**	**1,246,055**	**1,085,400**	**15%**
	EV (batteries)	661,055	582,900	13%
	EV (Rest of car)	585,000	502,500	16%

[1] The emissions included in EZOO's operational boundary are shown in Figure 1.

[2]Scope three emissions due to the manufacturer of electric vehicle EZOO Purchase are not within the defined operational boundary of EZOO, this is because EZOO has no control on the manufacturing practices of EV manufacturers However, these emissions are still significant and therefore are reported on separately.

c. Progress against targets

i. Scope 1 and 2 target (binding target)

TARGET 1: EZOO aims to reduce their absolute scope 1 and 2 emissions by 42% by 2030. This equates to a reduction of 2,000 kg CO2e from their 2020-2021 baseline level of 4682 kg CO2e.

This target was calculated using the Science Based Target Setting Tool and the Absolute Contraction Method. The most ambitious target option was chosen, which aligns with the 1.5-degree global warming scenario as set out by the Intergovernmental Panel on Climate Change (IPCC)

Progress against target 1: *an 11% reduction in carbon footprint has been achieved, a significant reduction considering EZOO has continued to grow the business in this financial year.*

Note that in subsequent years we may need to redefine the baseline carbon footprint to represent a form of levilised carbon emissions rather than the current absolute value.

ii. Scope 3 targets (non-binding targets)

TARGET 2: EZOO aims to increase the average utilisation of its vehicles from 70% to 95% by 2030.

- *The utilisation is the percentage of days per year that a vehicle is being leased to companies.*
- *By increasing vehicle utilisation, EZOO hopes to increase the miles that their EVs travel each year, and therefore the lifecycle emissions savings of the Electric vehicles.*
- *EZOO will also report on the miles travelled per year and forecast the life cycle emissions of their EVs based on this.*

Progress against target: *93% -a 4% drop on the previous year.*

TARGET 3: EZOO will include Cradle to Gate (C2G) Emissions of EVs as a significant procurement criterion.

- *While C2G emissions of Electric vehicles are currently not reported by manufacturers, it is likely to change.*
- *EZOO will actively monitor this situation and review manufacturer information.*
- *When information becomes available C2G emissions will be included in their procurement criteria for the purchasing of new electric vehicles.*

Progress against target 3: *EZOO consider these emissions in procurement however no major EV manufacturer has published certified cradle-to-gate emissions of their vehicle yet.*

TARGET 4: EZOO aims to increase the percentage of customers purchasing green electricity from 0% in 2021 to 33% in 2030.

Of the remaining scope 3 emissions, use of EVs leased or rented to customers 'downstream leased assets' is responsible for over 75% in the baseline year, therefore EZOO has set the above target to aim to reduce this.

Progress against target 4: *Work for this will begin during 2024 and once completed we will issue a full report*

d. Summary for website

In the 12 months from 1st April 2022 to 31st March 2023 (the reporting period), EZOO had a total direct carbon footprint (Scope 1 and 2) of 4,153kg CO_2e. This is an 11% reduction compared to the previous 12 months.

Our carbon emissions came from two sources,

1. Electricity purchased for charging our electric vehicles offsite. When we charge vehicles at the office we are using renewable energy. However, offsite charging cannot always be zero carbon. We charged a lot more vehicles on the road in 2023, so these emissions increased by 30%
2. Gas consumption for heating our office: we used 20% less gas this year compared to the previous year, therefore emissions also reduced by 20%

EZOO has set a target to reduce its total carbon footprint by 42% by 2030. This 11% reduction tells us we are on target to meet that goal.

In the reporting period EZOO purchased an additional 78 vehicles and sales increased by 40%. However, emissions still dropped. As EZOO continues to grow it may not be feasible to reduce absolute annual emissions, year on year, and we may report on carbon emissions per customer mile.

To explain this further, EZOO's total annual carbon footprint may grow in coming years as they increase office space and fleet vehicles. This is not a fair comparator with previous years, because they leased significantly more vehicles. Offsetting emissions of other car lease, or rental companies. Therefore the emissions per customer mile may make a more sensible comparator.

For example, in 2022/23, Customers drove over 1,200,000 miles in EZOO leased vehicles. Therefore, EZOO's emissions were just 3g of CO2 emissions per mile.

EZOO recognises that supply chain emissions resulting from the manufacture and transport of EVs are more significant. EZOO is monitoring reports for EV manufactures and will consider this when making procurement decisions.

Appendix: Calculation methodology and justification

1. Methodology

a. The organisational and operational boundary

The organisational and operation boundary determines and categorises the emissions to be accounted for. The methodology to determine and categorise different sources of emissions follows guidance set out in

- Pledge To net Zero, Guidance for Signatories
- GHG Protocol Corporate Accounting and Reporting Standard, Revised Edition. Chapter 3 and 4
- General Reporting Protocol, Version 2.1. Chapter 4 and 5

i. Consolidation approach

In line with guidance set out by Pledge to Net Zero, EZOO will use the operational control consolidation approach for determining the organisational and operational boundary and therefore the scope of the carbon accounting. The key impact this has on the organisational boundary is that emissions from vehicles leased to business customers from EZOO are accounted for in Scope 3

ii. Organisational boundary

EZOO does not have any financial or operational interest in any other companies, therefore 100% of EZOO Limited emissions will be accounted for by EZOO Limited

iii. Operational boundary

The operational boundary details the emissions sources that will be included in the carbon accounting, splits them into the three scopes as required by the GHG corporate standard and details and justifies any exclusions make from scope 3 emissions. The operational control consolidation approach has been used. The key criteria for determining relevant scope 3 categories is EZOOs ability to control or significantly influence them, although consideration has been given to the relative size of the emissions category. Figure 1 shows the operational boundary for EZOO and details and justifies emissions excluded from Scope 3.

Scope 1

Stationary Combustion

Emissions from burning of natural gas (UK grid) for heating EZOO's Coventry office

Scope 2

Indirect emissions for purchased electricity

1. Emissions from electricity consumption at the office
2. Emissions from electricity consumption of Electric Vehicles owned by EZOO

Scope 3

1. **Purchased good and services**
   - Cradle to gate emissions from purchased general office goods
   - Cradle to gate emissions from purchased Electric Vehicle Chargers
   - Cradle to gate emissions of purchased water
2. **Capital goods (excluded due to EZOO's inability to influence these emissions)**
   - Cradle to gate emissions of Electric vehicle's purchased by the company
3. **Fuel and energy related activities**
   - Upstream emissions of purchased fuel and electricity
   - Transmissions and distribution losses associated with purchased electricity
4. **Upstream transportation and distribution** -- excluded due to the small contribution to over all emissions
5. **Waste generated in operations**
   - Office Waste Materials.
   - Waste water treatment
6. **Business travel --** Excluded (all business travel is accounted for in scope 2)
7. **Employee commuting**
   - transport emissions associated with Employee community using their own vehicles
8. **Upstream leased assets** - Excluded no leased assets
9. **Downstream transportation and distribution** – excluded no third-party transport used
10. **Processing of sold products --** Excluded no post processing of sold products
11. **Use of sold products**
    - Direct use phase emissions of Electric Vehicle Chargers sold
12. **End life treatment of sold products**
    - End of life treatment of Electric Vehicle Chargers sold
13. **Downstream leased assets**
    - Direct use phase emissions of EVs rented and leases to customers
14. **Franchises** – Excluded – no franchises exist
15. **Investments** -- Electric Zoo does not have any applicable investments

Figure 1- EZOO's operational boundary

2. Calculation methodology

a. The baseline year

The baseline year was April 2020 – March 2021.

b. Calculating scope 1 emissions

The only scope 1 emissions EZOO were responsible for in the calculation period were stationary combustion through burning natural gas to provide water and space heating for the office.

To calculate these emissions the total volume of gas purchased in the reporting year was collected from EZOO's energy bills, this is multiplied by the emissions factor for the UK mains gas network, as set out in 2023 UK Gov Emissions Factors.

c. Calculating scope 2 emissions

As set out in General Reporting Protocol, Version 2.1. Chapter 4 upstream emissions from purchased electricity are calculated by both the location-based and market-based approach. In this case, EZOO's electricity is supplied by Good Energy, whose published (market-based) fuel mix is 100% renewable energy, and therefore zero carbon.

Two sources of electricity consumption are considered.

1. **Electricity consumed at their office** (to power electric vehicles and the office)
   This is estimated using energy bill data for the domestic dwelling, the office and EV charging for the business. Consumption data from the onsite EV charge points is attributed solely to EZOO. The remaining energy consumption onsite is apportioned between the EZOO and the domestic dwelling using Gross Internal Area (GIA).
2. **Electricity used to charge vehicles outside of the office.** This consumption data is taken from the onboard computers and is therefore highly accurate

The electricity consumption data collected above is multiplied by the emissions factor for the UK electricity 2023

d. Calculating scope 3 emissions

Category	Calculation methodology	Emission factors
1. Purchased goods and services	The C2G emissions of EV chargers purchased is calculated using the average data method. Assuming the average charger installed weights 10kg. and that an EV charger can be considered a medium electronic product	Greenhouse gas reporting: conversion factors 2023 CTG emissions of a medium electronic product (material use tab)
2. Capital goods	The C2G emissions of EVs is calculated in two parts the battery, and the rest of the vehicle. Both are calculated using the average product method. Emission factors per kWh of battery and per medium vehicle were used. Emissions factors were taken from academia and not verified emissions factor database, and therefore are an estimation only.	Cradle-to-Gate Emissions from a Commercial Electric Vehicle Li-Ion Battery: A Comparative Analysis

3. Fuel and electricity-related activity	The Well to Wheel (WTW) emissions from electricity and gas generation and the Electrical Transmission and Distribution (T&D) network are calculated using the electricity and gas data collected for scope 1. Transmission and distribution losses are calculated in the same way.	WTW emissions factors for electrical generation and T&D, Natural gas, along with T&D losses were all taken from Greenhouse gas reporting: conversion factors 2023
5. Waste Generated in operations	Standard office waste assuming a £100 annual spend on waste management. Calculated using the Economic average method. Emissions factors are taken from the GHC protocols scope 3 evaluator.	https://quantis-suite.com/Scope-3-Evaluator/
7. Employee commuting	Calculated using the distance-based method. The distance was estimated using the recommended calculation in the 'Technical Guidance for Calculating Scope 3 Emissions'. This was converted to kWh using the miles/kWh conversion factor, this is then multiplied by the kWh to kgCo2e conversion factor for UK electricity 2023.	Greenhouse gas reporting: conversion factors 2023 SECR kWh UK electricity for EVs (medium car)
11. Use of sold products	The direct use phase emissions of EV chargers sold by EZOO was estimated using the methodology set out in 'Technical Guidance for Calculating Scope 3 Emissions' The following assumptions were made • 60kWh charge a day a day • 365 days a year • Real-world efficiency of 5% • 10-year lifetime	
12. End of life emissions of sold products	End of life emissions of electric vehicle chargers is Estimated using the average product method.	Waste Treatment emissions factors for medium electric products were used as set out in Greenhouse gas reporting: conversion factors 2023
13. Downstream leased assets	• All vehicles leased or rented to customers have been included in this category. • Phase 1 and 2 emissions of customers have been included and calculated using the distance method. • Accurate mileage data was obtained from the vehicles, then emissions were calculated as with category 7, employee commuting.	Greenhouse gas reporting: conversion factors 2023 SECR kWh UK electricity for EVs (medium car)

e. Baseline recalculation methodology

EZOO baseline will be recalculated if:

- EZOO purchases additional office space. In this case, a recalculation will be liner based on square meters of office space.
- EZOO purchases additional warehouse or logistics space. Scope 1 and 2 emissions will be recalculated assuming 2020 emissions factors, and the fuel mix of EZOO's energy supplier in 2020.
- EZOO purchases many more vehicles, and carbon emissions are seen to be proportional to vehicle numbers. In this case, levilised carbon emissions will be used, using vehicle numbers, milage or similar as the leviler.
- More accurate calculation methodologies become available for any of the scope 1,2 or 3 methodologies. Recalculation will be conducted using this new methodology.
- Significant errors are discovered in the baseline calculation. A new methodology will be determined and applied to the baseline.