



Carbon reduction plan (PPN06-21)

October 2024

JIGSAW24

Jigsaw24 Commitment to achieving Net Zero

Jigsaw Systems Ltd (trading as Jigsaw24) are committed to halving our net carbon emissions by 2030 and to achieving true Net Zero (scope 1,2 and 3 emissions) with minimal use of offsets by 2040, in alignment with the Science Based Target Initiative (SBTI) to which we are committed.

Baseline carbon emissions

Baseline Year: Jigsaw24 Financial Year 2021/22 (June 2021 to May 2022)

Baseline 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 and therefore serve as a vital reference point against which emissions reduction can be measured moving forward.

Since FY21/22, we committed to reporting on all relevant elements of scope 3 that are within our operational control, as well as use of, and end-of-life treatment of Apple branded sold products, which whilst out of Jigsaw24's operational control, we feel was useful to calculate. We use three key intensity ratios to measure our continuous improvement: tCO₂e by employee headcount, tCO₂e by £m of revenue and tCO₂e by sqm floor space in our properties.

For this FY23/24 report, we have retained FY2021/22 as our base year, as this gives us a comparison against all the scope 3 elements that we calculated for the first time in 2021/22. The SBTi does not require companies using the SME route to set scope 3 targets for near-term targets; however, companies must commit to measure and reduce their scope 3 emissions.

GHG Scope	2021/22 Baseline Location- based (tCO ₂ e)	2021/22 Baseline Market- based (tCO ₂ e)
Scope 1 – Direct fuels used in buildings and fleet vehicles	10	10
Scope 2 – Purchased electricity	55	12
Scope 3 – Indirect emissions excluding 'Use & EOL treatment of Sold Goods'*	1904	1885
Total emissions, excluding *	1970	1908
Scope 3 – Indirect emissions including 'Use & EOL treatment of Sold Goods'*	6573	6554
Total Emissions including *	6639	6577
Intensity Ratio Metrics (including *)		
Scope 1 & 2 tCO ₂ e per employee (300)	0.22	0.08
Scope 1 & 2 tCO ₂ e per £m turnover (£169m)	0.39	0.13
Scope 1 & 2 tCO ₂ e per sq m property (3966)	0.017	0.006
Scope 1,2 & 3 tCO ₂ e per employee (300)	22.13	21.92
Scope 1,2 & 3 tCO ₂ e per £m turnover (£169m)	41.75	41.36
Scope 1,2 & 3 tCO ₂ e per sq m property (3966)	1.67	1.66

- Out of operational control, but calculated for Apple products

Current year emissions reporting

Jigsaw24 have calculated our total location-based carbon footprint for the reporting period at 5897 tCO₂e (location based – accounting for gross electricity consumption), with a market-based footprint (that takes carbon neutral renewable energy into consideration) of 5820 tCO₂e.

Location-based tCO₂e emissions are based on average emission factors for the local electricity grid for electricity consumed. Market-based tCO₂e emissions consider any contracts in place such as green tariffs, renewable energy certificates, and off-site power purchase agreements. Jigsaw24 purchased 100% renewable electricity in the reporting year, allowing zero scope 2 emissions to be reported.

The table below shows Jigsaw24's total carbon footprint for FY2023/24 (June 1st, 2023, to May 31st, 2024), organised by GHG Scope, compared to previous reporting year, and 2021/22 baseline. Note that rounded figures are used.

GHG Scope	Emission Category	2023/24 result - Location Based (tCO ₂ e)	2023/24 result - Market Based (tCO ₂ e)	2022/23 Market Based (tCO ₂ e)	2021/22 Baseline Market Based (tCO ₂ e)	Difference to FY22/23 tCO ₂ e (Market based)	Percentage Difference to FY22/23 (Market based)	Difference to FY21/22 Baseline tCO ₂ e (Market based)	Percentage Difference to Baseline (Market based)
		416571	416571	354852	325845	61719	17	90726	28
Scope 1	Building fuels (natural gas)	14	14	3	3	11	367	11	367
	Company controlled vehicle fuel	3	3	7	7	-4	-51	-4	-52
	HVAC Refrigerants	25	25	0	0	25	100	25	100
Scope 1 Total Emissions		42	42	10	10	32	320	32	320
Scope 2	Electricity Consumption	63	0	2	12	-2	-100	-12	-100
Scope 2 Total Emissions		63	0	2	12	-2	-100	-12	-100
Scope 3	3.1 - Purchased goods and services	441	441	609	780	-168	-28	-339	-43
	3.2 - Capital goods	97	97	179	332	-82	-46	-235	-71
	3.3 - Fuel- and energy-related activities	108	94	133	176	-39	-30	-82	-47
	3.4 - Upstream transportation and distribution	162	162	175	111	-13	-7	51	46
	3.5 - Waste generated in operations	1.7	1.7	1.8	1.3	-0.1	-3	0.4	33
	3.6 - Business travel	104	104	121	60	-17	-14	44	73
	3.7 - Employee commuting	194	194	240	285	-46	-19	-92	-32
	3.8 - Upstream leased assets	0	0	0	0	0	0	0	0
	3.9 - Downstream transportation and distribution	21	21	55	140	-34	-61	-118	-85
	3.10' - Processing of sold products	0	0	0	0	0	0	0	0
	3.11 - Use of sold products*	4418	4418	4161	4467	257	6	-49	-1
	3.12 - End-of-life treatment of sold products*	246	246	196	202	50	25	44	22
	3.13 - Downstream leased assets	0	0	0	0	0	0	0	0
	3.14 - Franchises	0	0	0	0	0	0	0	0
	3.15 - Investments	0	0	0	0	0	0	0	0
Scope 3 emissions excluding Use & EOL of sold goods*		1128	1114	1513	1885	-399	-26	-771	-41
Total Scope 1,2 & 3 emissions excluding Use & EOL of sold goods		1233	1156	1526	1908	-370	-24	-752	-39
Scope 3 Total Emissions including Use & EOL treatment of sold goods*		5792	5778	5871	6554	-93	-2	-776	-12
Total Scope 1,2 & 3 emissions including Use & EOL of sold goods*		5897	5820	5884	6576	-64	-1	-756	-12

Carbon intensity metrics

Average employee headcount over the reporting year was 311 compared to 327 in FY22/23 and 300 in the baseline year. Revenue increased from £159m in the baseline year, to £181m in FY22/23, and £239m in FY23/24. Average sqm of property increased from a baseline 3966 to 4408 in 22/23, and then reduced to 4356 in 23/24. As expected, the scope 1& 2 metrics have all increased, however the Scope 1,2 & 3 revenue metric has dramatically improved, whereas the employee and floor space metrics have slightly increased for Scope 1, 2 & 3 but remain lower than the baseline.

Metric	2023/24 - Market Based tCO2e	2022/23 Market Based tCO2e	2021/22 Baseline Market Based tCO2e
Scope 1&2 per employee (311)	0.14	0.04	0.08
Scope 1&2 per £m revenue (£239m)	0.18	0.07	0.14
Scope 1&2 per sqm of property (4356 sqm)	0.010	0.003	0.006
Scope 1,2,3 per employee (311)	18.71	17.99	21.92
Scope 1,2,3 per £m revenue (£239m)	24.34	32.51	41.36
Scope 1,2,3 per sqm of property (4356 sqm)	1.34	1.23	1.66

Emissions reduction targets Scope 1 and 2 targets

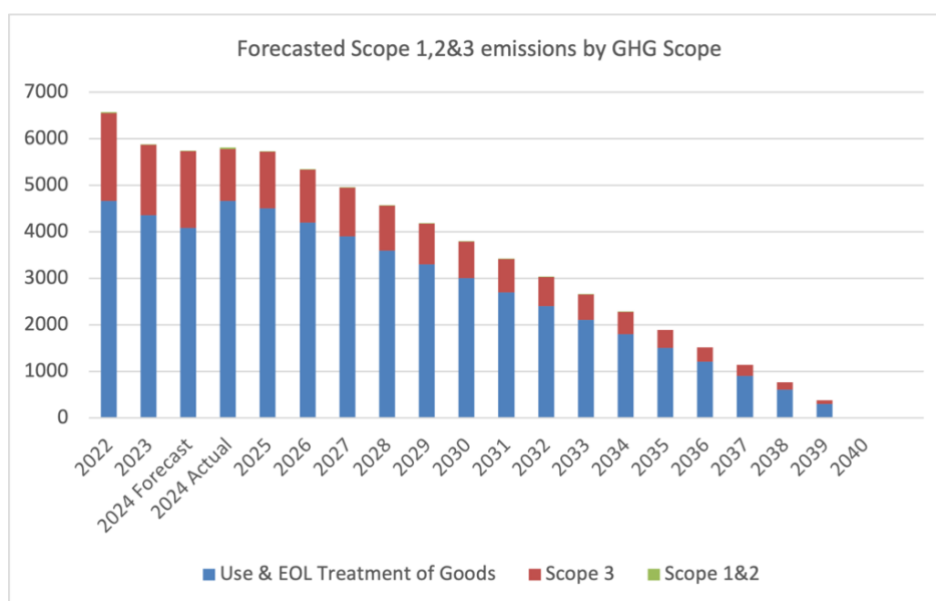
Jigsaw24 are a very low producer of direct Scope 1 and 2 carbon emissions. Our focus for reducing scope 1 and 2 emissions will be to focus on minimising fossil fuels, electricity, and gas consumption, with the next progression possibly coming from generating our own electricity with solar panels.

GHG Scope activity	2021/22 Baseline & metric	Target	How will we achieve this?	2023/24 Progress tCO2e
Scope 1 Company Car Travel	7 tCO2e 42kg per £m revenue	Zero emissions by 2030	Remove the last remaining two ICE vans from fleet by 2025, continue to support EV salary sacrifice and only lease electric vehicles.	3 tCO2e, (-57%), 12.5kg per £m revenue 87% of travel in EV's
Scope 1 Gas Consumption	3 tCO2e 0.76kg per sq m	100% reduction in building sq m intensity ratios by 2030	Remove or replacing gas boilers and/or radiators with electric, or heat pumps subject to ROI or landlord consent.	14 tCO2e (+367%), 3.21kg per sq m Amsys site now closed, Resource House gas to be monitored closely in 24/25
Scope 1 AC Refrigerants	0 (zero)	Maintain zero	Ensure HVAC is well maintained, with existing old unit replacement program continuing as before.	25 tCO2e due to faulty unit. Consider replacing remaining aged units over time.
Scope 2 Purchased Electricity	12.40 tCO2e 68kg per FTE	50% reduction in FTE intensity ratios by 2030	100% carbon neutral electricity for all premises contracted from 2023. Revisit solar panels further if ROI likely to deliver a return.	Zero market based. Continue with zero carbon electricity contracts.

Scope 3 targets

GHG Scope 3 Category	2021/22 Baseline & metric	Target	How will we achieve this?	2023/24 Progress against baseline
1. Purchased Goods and Services*	780 tCO ₂ e, 4.62t per £m revenue	50% reduction in £m revenue intensity ratios by 2030 Achieved in 23/24 Updated target of consistent 70% reduction by 2030	Target and collaborate with all suppliers to understand their stated net zero ambitions and actual carbon footprint and use that data instead of outdated DEFRA spend based data for reporting. Also improve budgetary control and reduce spend on external services such as contractors and consultants.	441 tCO ₂ e (-56%), 1.84t per £m revenue (-60%) Focus on supplier led reporting rather than just spend. Supplier specific data used for 60 partners. General reduction in spend and use of newer 2021 emission factors.
2. Capital Expenditure*	332 tCO ₂ e, 1.96t per £m revenue	50% reduction in £m revenue intensity ratios by 2030 Achieved in 23/24 Updated target of consistent 70% reduction by 2030	Target largest spend suppliers to understand their stated net zero ambitions and actual carbon footprint and use that data instead of outdated DEFRA spend based data for reporting. This figure was unusually high in previous reports due to two new offices opening.	97 tCO ₂ e (-71%), 0.4t per £m revenue (-80%) Reduced CAPEX spend, due to no major build out works, use of supplier focused, more accurate materials reporting as in category 3.1
3. Fuel and Energy Related Activities (WTT and T&D) *	176 tCO ₂ e, 533kg per FTE	50% reduction in FTE intensity ratios by 2030 Updated target of consistent 60% reduction by 2030	Emissions conversion factors should improve as network energy becomes greener, but the absolute figure is likely to grow with the business in the short term.	94 tCO ₂ e (-47%), 302kg per FTE (-44%). 100% carbon neutral electricity, Increased EV use for business travel and commuting, more accurate reporting on other transport data.
4.Upstream Transportation and Distribution**	111 tCO ₂ e, 656kg per £m revenue	50% reduction in £m revenue intensity ratios by 2030	More suppliers to account for their own downstream emissions; work to lobby couriers to accelerate their transition to low emissions EV fleets. Improve supplier stock-holding levels and more bulk and direct shipments. Consider investment in Sustainable aviation fuel with couriers.	162 tCO ₂ e (+46%), 677kg per £m revenue (+3.2%) Whilst the change in scope in 2023 produced an increase against the 2021 baseline for absolute emissions, the metric of 677kg in 2024 is almost back to the baseline figure.
5. Waste Generated in Operations	1.29 tCO ₂ e, 3.9kg per FTE	50% reduction in FTE intensity ratios by 2030	Promote reduction and re-use of packaging, and more recycled and recyclable materials. Ensure partners continue to avoid landfill and are investing in more innovative recycling and landfill avoidance technologies. Water management policy already in place at all sites.	1.72 tCO ₂ e (+33%), 5.2kg per FTE (+33%). Increase due to one-off changes to building profile, all projects which generated additional waste and increased water consumption.
6. Business Travel, including Hotel Stays	60 tCO ₂ e, 354kg per £m revenue	50% reduction in £m revenue intensity ratios by 2030	Will improve as more people are able to switch to EVs and public transport becomes cleaner. Keep travel to a minimum unless necessary, reverting to video conferencing where possible. Will depend on travel and hotel operators decarbonising.	104 tCO ₂ e (+73%), 435kg per £m revenue (+23%). Baseline was set in pandemic year, therefore artificially low, however the low baseline sets an ambitious target despite business growth.

7. Employee commuting, including Home Working	285 tCO ₂ e, 865kg per FTE	50% reduction in FTE intensity ratios by 2030	Will improve as more people are able to switch to EVs and public transport becomes cleaner and greener, and all households have a carbon neutral electricity tariff as standard. Continue to promote car share and invest in facilities for non-motorised or public transport commuters.	194 tCO ₂ e (-32%), 624kg per FTE (-28%) Headcount reduced within the year, the average number of FTE's being closer to the baseline than in 2023, therefore the 28% reduction against the baseline shows significant progress in this area.
8. Upstream Leased Assets	N/A	N/A	Accounted for in scope 1,2 and 3 elsewhere. Review as required.	Buildings and EV's accounted for in other scopes.
9. Downstream Transportation and Distribution**	140 tCO ₂ e, 825kg per £m revenue	50% reduction in £m revenue intensity ratios by 2030	Work with and use more suppliers that have more sustainable logistics services, lobby more suppliers for 'free' shipping. Local suppliers will reduce this number further.	21 tCO ₂ e (-85%), 87kg per £m revenue (-90%) Scope change in 2023 means that this baseline may need to be reviewed or recalculated against the methodology of later years. More clarity is also needed from the GHG protocol on this category.
10. Processing of Sold Products	N/A	N/A	All products are finished goods or services with no additional processing that is not accounted for in our other reporting.	N/A
11. Use of Sold Products (Apple)*	4467 tCO ₂ e, 31kg device average	Out of Operational Control	Will reduce as the reported GHG carbon footprint of our vendors products reduces due to verified decarbonisation of the production process, and cleaner grid energy over time. Apple are aiming for all of their products to be carbon neutral by 2030. Apple launched their first carbon neutral product (Watch) in 2023.	4418 tCO ₂ e (-1.1%), 16kg average per device sold (-50%). Deemed out of operational control but demonstrates energy improvements in Apple product portfolio. Significantly Higher (+47%) volumes mitigated by changing product profile and cleaner new models.
12. End-of-Life Treatment of Sold Products (Apple)*	202 tCO ₂ e, 1.4kg device average	Out of Operational Control	Will reduce as the reported carbon footprint of our vendors products and improved recycling processes improve over time.	246 tCO ₂ e (+22%), 1kg average per device sold (-29%). Deemed out of operational control but modest increase considering the 47% increase in device shipped since FY21/22
13. Downstream Leased Assets	N/A	N/A	N/A	Not relevant to Jigsaw24 in 2024
14. Franchises	N/A	N/A	N/A	Not relevant to Jigsaw24 in 2024
15. Investments	N/A	N/A	N/A	Not relevant to Jigsaw24 in 2024



Carbon reduction initiatives

Carbon reduction initiatives now embedded into our normal business operations.

Opportunity	Details of initiative	FY23/24 Impact	Estimated Carbon reduction (tCO2e)
100% Carbon neutral electricity	All buildings powered by carbon-neutral electricity tariffs from August 2023,	-63 tCO2e saving. Zero Scope 2 market-based emissions compared to location based.	63
Offices	Invested in state of the art, modern, cleaner, greener buildings in Nottingham and London. Improved EPC ratings in 2022. HQ improved from C-72 to C-54. Resource House from C-66 to B-37. Whitfield Street is B-42.	HQ energy consumption still reducing slightly year on year, other sites are reaching a steady status. Amsys site closure will have an effect of removing gas emissions of 8.5 tCO2e, plus reduced waste and logistics in next report	TBC in 2025
Logistics and order management	Increased use of direct 'drop' shipments bypassing HQ where not required. Use of couriers with strong green credentials and offer innovative logistics solutions to cut goods travel.	Depends on business activity rather than true reductions. Qty of shipments increased, but smaller parcels on average. Drop ship did increase, which is chargeable, meaning 'free' downstream supplier shipping into HQ reduced significantly.	TBC in 2025
Supplier engagement and environmental assessment	Continue to improve collaboration with customers and supply chain partners, focusing on supporting other to start the net zero journey.	Positive customer engagement through various events. 250 tCO2e lower Cat 3.1 & 3.2 emissions than using just spend based calculations.	250
Full LED lighting	LED lighting in all buildings, with PIR sensors where appropriate	Approximately 75% less energy consumption for lighting compared to non-LED lighting.	Scope 2
Support moves to electric vehicles and public transport	EV and cycling salary sacrifice schemes open to all staff. Lease of electric van for Amsys, and no more ICE vehicles to be added to fleet.	Estimated 30 tCO2e of avoided emissions by use of electric vehicles and public transport for business travel and commuting	30
Home Working	Continue to offer a degree of hybrid home working to employees where appropriate.	Difficult to quantify, we estimate that the average car commuter has a 30% higher footprint than a home worker which would add up to 16 tCO2e in FY24/25	16
Paperless office and improved waste management	Reduction of printing to near paperless levels across all office functions, except for certain customers that need manual delivery notes.	Jigsaw24 was never a high paper consumer, estimated saving of 1 tCO2e against paper and ink consumption, plus recycling	1
IT infrastructure	Investment in more energy efficient technology and processes, such as cloud-based software systems. Decommission excess hardware in comms cabs and remove requirement for Node4 data centre in 2023.	Further reduction of on-premises server infrastructure in 2023, Removal of data centre infrastructure.	Scope 2
Evangelisation	Ongoing program of environmental awareness and carbon literacy to staff, partners, and customers	Energy and carbon specific training and collateral rolled out in 2023, now part of staff induction. Increases employee engagement	N/A
Compliance and Certification	Continued commitment to ISO14001, ISO 50001, CDP, SBTi, Eco Vadis and other certifications and legal obligations	Improved external stakeholder engagement and regulatory compliance.	N/A
Other initiatives	Reduced plastic in supplies, packaging and catering, recyclable stationary, efficient electrical appliances, water restrictors on taps, recycling bins in all areas,	General control of scope 2 emissions.	<1
Total estimated carbon reduction in FY23/24			-360 tCO2e

In-progress and future carbon and energy reduction initiatives

In addition to the scope 1,2 and 3 specific targets and initiatives detailed earlier, the following environmental management measures and projects are either in progress or are on our future carbon reduction roadmap.

Opportunity	Impact	Details of Planned initiative	Time frame for impact
Supporting customer Net Zero journeys	Commercial	Jigsaw24 can already report on general carbon footprint per customer based on revenue split, but also at a more specific product level for certain vendors.	2024
Enhanced carbon emissions reporting	Reporting	Carbon reporting brought in house in 2023. Further improved internal reporting tools 2024. Consider use of AI and Microsoft Power BI in future reporting.	2024
Travel Policy	Emission reduction	Continue to review effectiveness of current initiatives and adapt as necessary, investigating car sharing, electric bike, and other schemes as they become available. New travel platform launched in 2024.	2024
Improved insulation at Jigsaw24 HQ in Nottingham	Emission reduction	Quotes have been gained to insulate rear warehouse roof that currently has no HVAC.	2025
Company owned and leased vehicles	Emission reduction	Zero ICE vehicles in company fleet Removal of final two vehicles when appropriate.	2025
Logistics	Emission reduction	Lobby all courier partners to accelerate transition to 100% EV fleet and continue to offer innovative solutions for Jigsaw24 deliveries and collections, and to also improve reporting.	2025
Remove requirement for gas at all sites	Emission reduction	Consider removal or electrification of gas supply at Resource House when lease renewal is due	2027
Carbon reporting and verification standards	Compliance	While ISO14064 and PAS2060 have been put on hold, changes to government policy, or the GHG protocol will be expected, which may make this commitment unavoidable.	2026
Revisit solar panels for Nottingham HQ	Emission reduction	Due to increased energy prices, solar panels could deliver a more realistic return on investment.	2028
Investigate improved HVAC technology	Emission reduction	Investment in new HVAC technologies as they become realistic for business. As a minimum, ensure any replacement units are R32 or better.	2028+
Carbon offsetting	Offsetting	Whilst offsetting is no longer a short-term objective, Jigsaw24 are aware that it will eventually be required to account for hard to abate residual emissions as we approach Net Zero	2030+
Aim to be carbon negative by 2040+	Emission reduction	Investment in future carbon Direct Air Capture technology as it becomes available, however mindful that this is presently some time away from being commercially viable.	2040+

Declaration

This Carbon Reduction Plan has been completed in accordance with UK Government Procurement Policy Note PPN 06/21 and UK Government SECR requirements.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans, the GHG Reporting Protocol Corporate Standard, and Corporate Value Chain (Scope 3) Standard, and uses the appropriate Government emission conversion factors for greenhouse gas company reporting developed by DEFRA and BEIS.

This Carbon Reduction Plan has been reviewed and approved by the board of directors.

Signed on behalf of Jigsaw Systems Ltd trading as Jigsaw24:

A handwritten signature in black ink, appearing to read 'R Whittle', with a horizontal line underneath.

Roger Whittle

Founder and Director

October 2024