Beebug Ltd — Carbon Reduction Plan (Updated 2025)

Measurement period: 1 January 2024 — 31 December 2024

Prepared for: Beebug Ltd

Publish date: October 2025

Our Commitment

Beebug Ltd. is committed to achieving Net Zero emissions by 2040.

What does Net Zero mean in practice?

To achieve Net Zero, we will be aiming to reduce emissions in line with the latest science-based targets (SBTs). SBTs are greenhouse gas reduction goals set by organisations, they are defined as "science-based" when they align with the scale of reductions required to limit global temperature increases to 1.5°C compared to pre-industrial temperatures. To achieve Net Zero under this scenario, we will need to reduce our absolute emissions by 90% from our baseline year.

SBTi recommends that organisations commit to near-term targets (that cover a minimum of 5 years/maximum of 10 years from the baseline year), as well as long-term targets.

Our near-term targets:

- Reduce scope 1 and 2 emissions to zero by 2030.
- To procure 80% renewable electricity by 2028 and 100% by 2030.
- Reduce Scope 3 emissions by 42% by 2030.

Our long-term targets: -

- Reduce our total market-based emissions (scope 1, 2 and 3) by at least 90% by 2040.
- Neutralise any residual emissions using verified carbon offsets.

Scope 1 emissions: direct greenhouse gas emissions that occur from sources owned or controlled by a company, such as emissions from the combustion of fuels in on-site boilers, furnaces, or vehicles.

Scope 2 emissions: indirect greenhouse gas emissions that result from the generation of purchased electricity, steam or other forms of energy consumed by a company.

Scope 3 emissions: all other indirect greenhouse gas emissions that occur in an organisation's value chain, including emissions from upstream and downstream activities.

Our Carbon Footprint

Baseline Emissions Footprint

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. Baseline emissions are the reference point against which emissions reduction can be measured. We have chosen to set our baseline year as January - December 2022.

Executive Summary

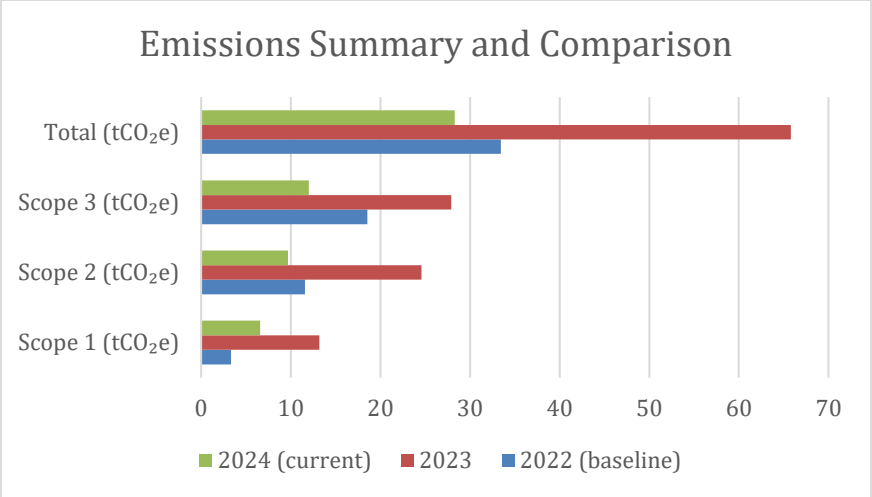
This 2025 update of Beebug Ltd's Carbon Reduction Plan covers the measurement period 1 January 2024 – 31 December 2024, building on the previous report covering 2023 data.

Following correction to a consumption-based methodology (kWh for electricity and gas), total 2024 emissions are estimated at 28.30 tCO_2e, representing a 57% reduction compared with the 2023 baseline (65.8 tCO_2e) reported by Positive Planet, and aligning with the original baseline year methodology.

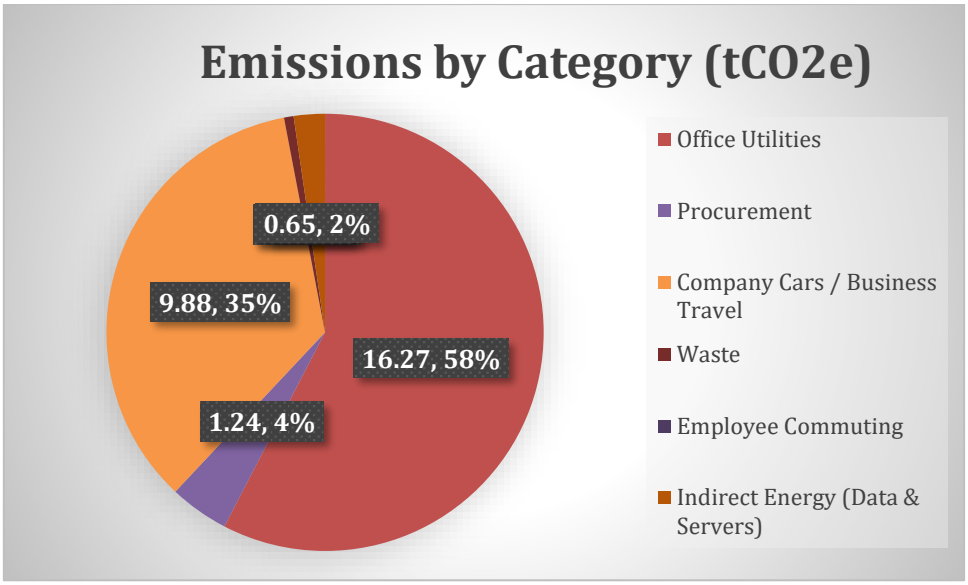
Emissions Summary and Comparison

Year	Scope 1 (tCO_2e)	Scope 2 (tCO_2e)	Scope 3 (tCO_2e)	Total (tCO_2e)
2022 (baseline)	3.317	11.583	18.558	33.458
2023	13.2	24.6	27.9	65.8
2024 (current)	6.59	9.68	12.02	28.30

Current Reporting Year: January – December 2024	
Emissions	Total (tonnes C02e)
Scope 1	6.59
Scope 2	9.68
Scope 3 including: - Purchased Goods & Services - Capital Goodes - Fuel & Energy Related Services - Business Travel - Transportation & Distribution (Upstream & Down Stream) - Employee Commuting & Homeworking - Operational Waste & Water	12.02
Total Emissions (including procurement)	28.30



Scope 1: Natural gas estimated from spend (£2,162 at £0.06/kWh ≈ 36,033 kWh) × 0.183 kg/kWh = 6.59 tCO_2e; refrigerants (R32) serviced, no top-up = 0 tCO_2e.
Scope 2: Electricity estimated from spend (£11,220 at £0.27/kWh ≈ 41,556 kWh) × 0.233 kg/kWh = 9.68 tCO_2e (location-based).
Scope 3: Business travel 9.88 t, procurement 1.24 t, waste 0.20 t, water 0.05 t, ICT 0.65 t → 12.02 tCO_2e.



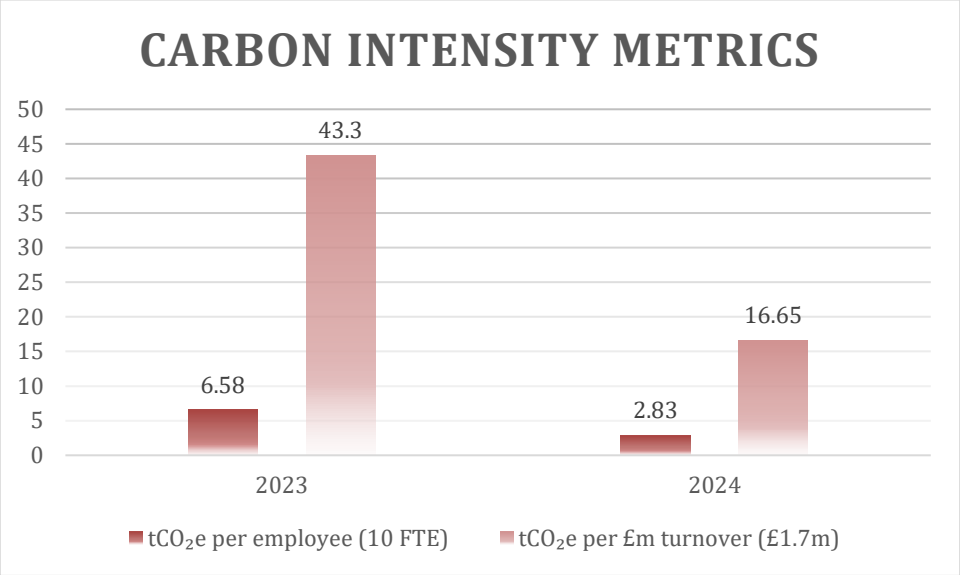
Comparison with Baseline and Trend Analysis

After a temporary rise in 2023 due to expanded boundary coverage and increased operational activity, Beebug Ltd achieved a substantial reduction in 2024 when applying consistent, activity-based calculations. This improvement primarily reflects electrification of company vehicles, reduced electricity and gas consumption, stable low procurement and travel emissions, and refined, transparent methodology aligned with previous baseline approach.

Carbon Intensity Metrics

Metric	2023	2024	% Change
tCO_2e per employee (10 FTE)	6.58	2.83	−57.0 %
tCO_2e per £m turnover (£1.7m)	43.3	16.65	−61.6 %

Based upon 10 employees and a £1.7m turnover during the measurement period. We are using market based emissions to calculate our intensity metrics.



Beebug Ltd has significantly improved its operational carbon efficiency. Emissions per employee and per £m turnover have fallen by over 55% since the 2023 measurement year, demonstrating continued efficiency gains alongside steady business growth.

Completed Carbon Reduction Initiatives

The following emissions management measures and projects have been completed or implemented.

Activity	Completion Date	Scope
Commit to measuring carbon footprint of business activities year on year to gain an understanding of pinch points and regularly be making efficient and direct improvements to reduce these emissions. Year 1 appointed Positive Planet to support with calculating baseline carbon footprint and reduction recommendations.	2023	1,2,3
Created a Green Team to lead initiatives. This team has been made up of members from different departments to support the roll out of initiatives and management of data, this includes sharing and collaborating throughout the organisation.	2023	1,2,3
Replace aging Airconditioning systems at main office with modern efficient units. Lowering energy consumption and reducing the need to re-gas aging units.	2024	1,2

Future Carbon Reduction Plans

We are committing to action the following emissions management measures and projects in line with our Net Zero targets.

Reduction Plans – Scope 1 & Scope 2				
Activity No.	Activity	Target Date	% Reduction Target	Category
1	Ask the facilities management to consider low cost options such as reducing the boiler temperature and adding heat & solar control reflective window sheets. Consider planning for larger cost management (where appropriate) such as an efficient boiler system. Consider moving to premises without gas heating for 100% reduction is stationary combustion emissions.	2025-2030	6%	Stationary Combustion
2	Encourage the facilities management company at the office to procure a 100% renewable electricity tariff. This change will reduce market-based emissions (from chosen tariff) from the office (common areas) to 0 tCO2e.	2026-2030	100% (market base)	Purchased Electricity
3	Implement energy efficiency measures to reduce the overall amount of electricity consumed at sites. Optimise operational procedures and implement energy management systems (such as ISO 14001). Examples of reduction measures include: - upgrading lighting and introducing more sensor lighting, and aligning sensor times to usage patterns (eg 3 minutes for corridors, 20 minutes for working spaces) - installing timers on sockets/equipment - reviewing and renewing inefficient equipment (when at end of life), and actively consider the energy efficiency of equipment when new purchases are required (eg laptops, fridges, dishwashers) Invite colleagues from different sites to openly explore challenges and barriers to collaboratively	2026-2030	10% (location-based)	Purchased Electricity

	find solutions for reduction.			
4	To completely reduce market and location based energy emissions to zero, install on-site renewable energy generation technologies such as solar PV panels, solar heating, heat pumps (following an energy audit to assess feasibility and payback periods), to generate 100% of heating and energy demand. Consider removing on-site stationary combustion (gas) heating. Alternatively, encourage the landlord to do the above or consider moving site. If the UK Grid is 100% powered by renewable energy before this point, our Scope 2 location based (and market-based) electricity emissions will already be zero. We would still need to consider gas emissions unless removed (or better technology is available).	2026-2030	100% (market base)	Stationary Combustion Purchased Electricity

Based upon the above completed and planned initiatives, it is projected that Scope 1 & 2 carbon emissions will decrease to 0 tCO2e by 2030.

We also aim to implement the further initiatives below to reduce Scope 3 emissions:

Reduction Plans – Scope 3				
Activity No.	Activity	Target Date	% Reduction Target	Category
1	Consider training and engagement for the Green Team, leadership, and the wider employee base. Including and not limited to, creating spaces for environmental positive conversations (internal comms, newsletters, slack, Teams etc.), certified Carbon Literacy Training for all applicable to roll out to further workforce and share with externals where appropriate. On average, certified learners reduce their carbon footprints by 5-15%, of which ~50% are work-related.	2026-2030	2.5 - 7.5%	Commuting & Home Working Business Travel
2	Implement a Sustainable Procurement Policy. Encourage suppliers to adopt sustainable practices and improve their own carbon footprint through supplier engagement, procurement policies and contracts, and monitoring reporting mechanisms. Commit to a Sustainability Audit or Survey to request further information regarding credentials – Plan to send these to the top 10/20 suppliers by spend. This data collection will support reduction journey by gathering important data for year two measurement & encourage supply chain integration towards Net Zero. Complete this audit within two phases: 1. Identify suppliers for engagement 2. Formulate and collect data (survey/scoring) Once completed prioritise suppliers with lower carbon footprints as part of the above phased approach. This may also involve purchasing second hand/refurbished (furniture, IT equipment) and extending the lifespan of purchased items. Develop and monitor procurement policy for all new suppliers to align to Net Zero goals.	2026-2030	20%	Purchased Goods & Services
3	Liaise with key suppliers to see whether they can ship with the minimal amount of packaging needed to secure the product.	2024 (ongoing)	25%	Waste

Based upon the above completed and planned initiatives, it is projected that (as a minimum) Scope 3 carbon emissions will further decrease over the next seven years from the current normalised measurement of 27.9 tCO2e to 16.2 tCO2e by 2030. This is a reduction of 42% and will keep us on track to Net Zero.

Roadmap 2025–2030 Highlights

1. Transition to 100% renewable electricity by end of 2026.
2. Phase out natural gas and consider heat-pump alternatives by 2028.
3. Supplier sustainability engagement: complete supplier survey for top 10 suppliers by 2025.
4. Formalise sustainable travel policy: prioritise EVs and remote working.
5. Annual CRP review: third-party data verification to commence from 2026.

Monitoring & Governance

Calculations use UK Government/DEFRA 2024 factors based on consumption (kWh) for gas and electricity.
Reporting boundary follows the GHG Protocol Corporate Standard.
Quarterly data collection across gas, electricity, procurement, and travel.
Annual management review led by the Sustainability Lead, overseen by the Executive Sponsor.

Total 2024 Emissions: 28.30 tCO_2e
Change from 2023: −57.0 % (methodology corrected to consumption-based factors).
Reduction from 2022 baseline: −15 %
Target: Continue progress toward Net Zero by 2040.

Declaration and Sign Off

This Carbon Reduction Plan has been completed and submitted in accordance with the Public Procurement Notice (PPN 06/21) and associated guidance and reporting standard for the 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[1] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[2].

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 Management Plan has been reviewed and approved by Beebug Ltd. Executive Team.

Signed on behalf of Beebug Ltd.

Jimmy Varnavides, Managing Director, Beebug Ltd

Date: 14 October 2025Signed on behalf of Beebug Ltd.

Jimmy Varnavides, Managing Director, Beebug Ltd, 14-10-2025