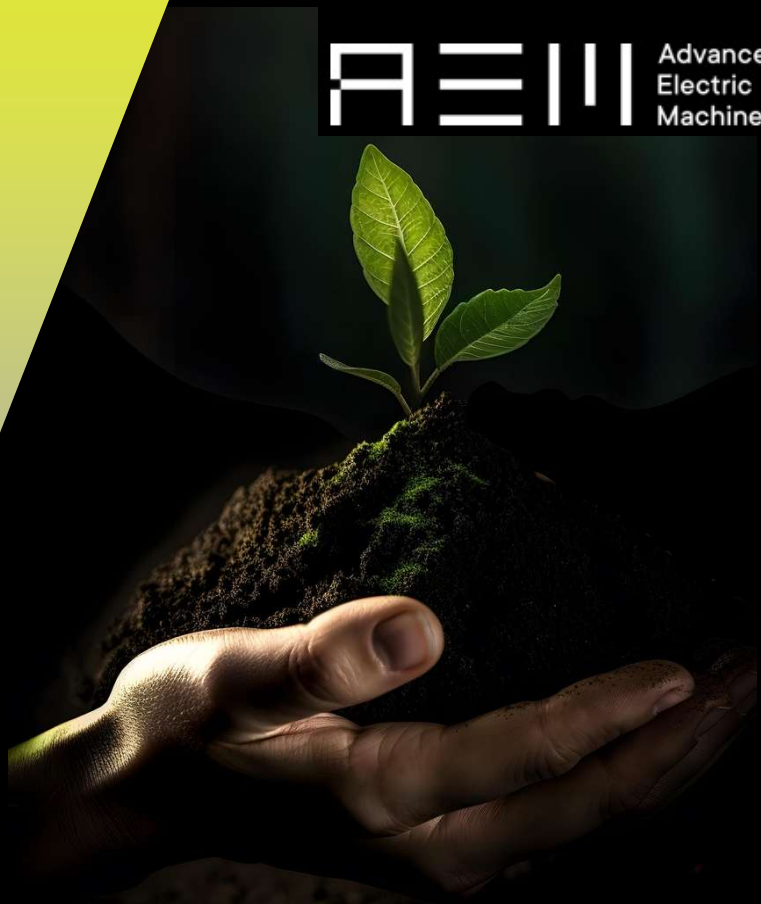

Advanced Electric Machines

Net Zero

Progress Report 2025

Contents

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Teamwork!

AEM's journey to Net Zero can not be accomplished by one person. Through employee engagement, consideration of how our actions at work and at home impact the environment are becoming part of our everyday life.

Mike O'Neill AEM C.O.O.

Net Zero Commitment

AEM recognises the importance of making a full and lasting commitment to reducing the greenhouse gas emissions from its activities, in support of the wider commitment of the world to limit global temperature increases and the impact on the planet.

AEM commits to the following:

1. To achieve Net Zero in line with the Science Based targets set out by the UNFCCC i.e., to achieve Net Zero no later than 2050 and target a 50% reduction in emissions by 2035.
2. To set realistic short- and long-term targets that are designed to achieve Net Zero commitments.
3. To report the total Greenhouse Gas emissions of our business, at a minimum, on an annual basis.

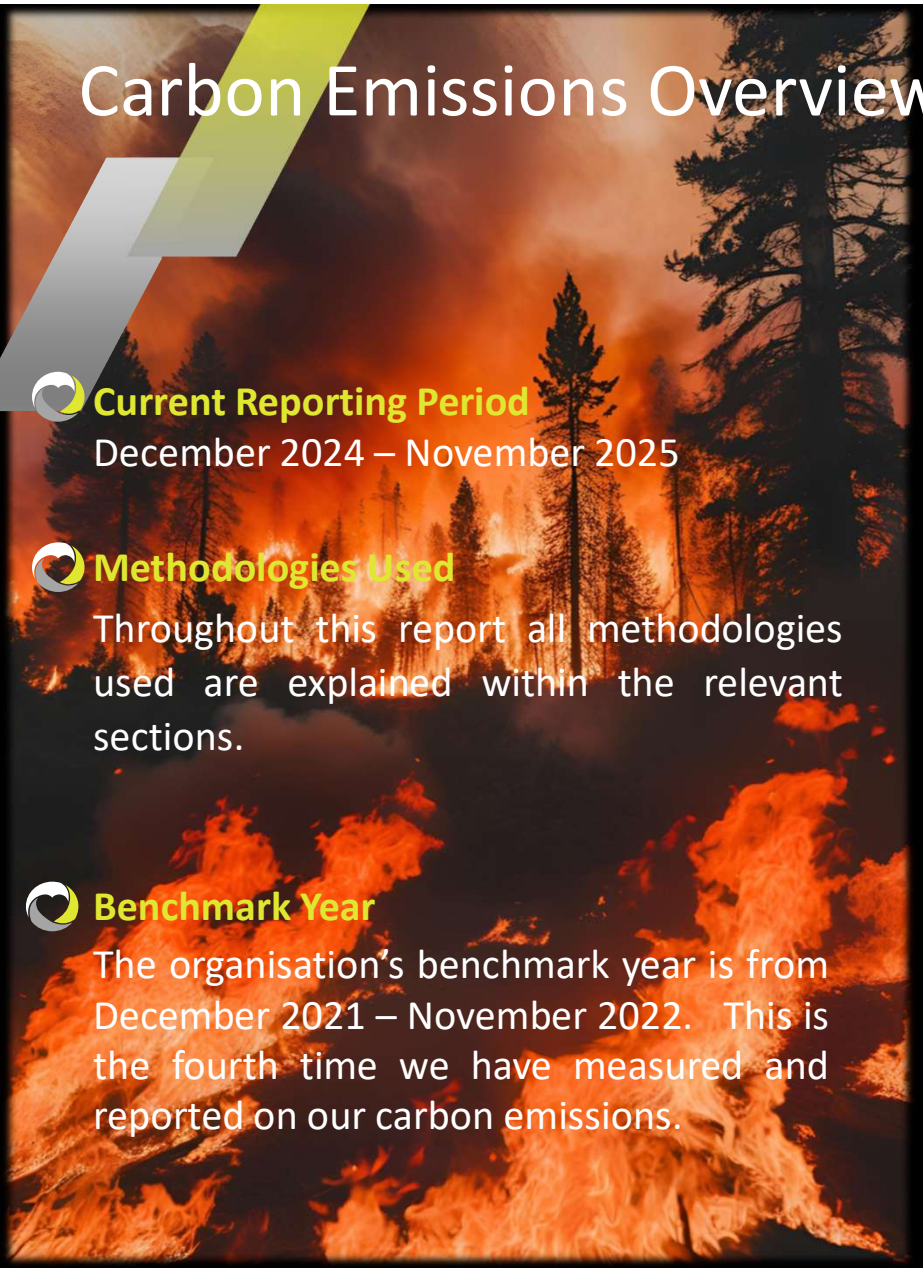
	Target Reduction	Year
Pledge to be Net Zero	**90%**	**2050**
Scope 1,2 & 3	**50%**	**2035**

About AEM

- AEM spun out of Newcastle University in 2017 and is now based in Washington, United Kingdom, with around 50 staff. The Washington site includes three units, one is a factory with a scalable production line to build 12,000 motor units per year, the second is an office building for engineering and administration and the third building houses test facilities used in the validation and testing of the products.

- AEM designs and manufactures electric powertrain technologies for commercial vehicles, passenger cars, off-highway, and aerospace applications. AEM's next-generation electric motors and powertrain systems eliminate rare earth permanent magnets and copper windings, creating fully recyclable products at end-of-life, while still delivering performance and efficiency that rivals that of permanent magnet motors.

Carbon Emissions Overview



Current Reporting Period

December 2024 – November 2025

Methodologies Used

Throughout this report all methodologies used are explained within the relevant sections.

Benchmark Year

The organisation's benchmark year is from December 2021 – November 2022. This is the fourth time we have measured and reported on our carbon emissions.

General Data

Reporting Period	Benchmark Period December 2021 – November 2022	Current Period December 2024 – November 2025
Industry	Engineering	Engineering
No. of Staff (average)	49	54
No. of Offices Owned	0	0
No. of Offices Leased	2	3
No. of Company Vehicles - Owned	0	0
No. of Company Vehicles - Leased	0	1

Organisational Boundary

There are 3 different approaches to measuring emissions, as defined by the GHG Protocol. This report has been constructed using the **Operational Control Approach**, considering the requirements of each potential approach.

Approach	Description	Approach Taken
Operational Control	The organisation has operational control over an operation if it or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.	✓
Financial Control	The organisation has financial control over the operation if it has the ability to direct the financial and operating policies of the organisation with a view to gaining economic benefits from its activities.	
Equity Share	The organisation accounts for GHG emissions from operations according to its share of equity in the operation.	

Carbon Emissions Overview

Benchmark Period

Total Carbon Emissions

182.4

tCO_2e

-40.6%

Current Period

Total Carbon Emissions

108.4

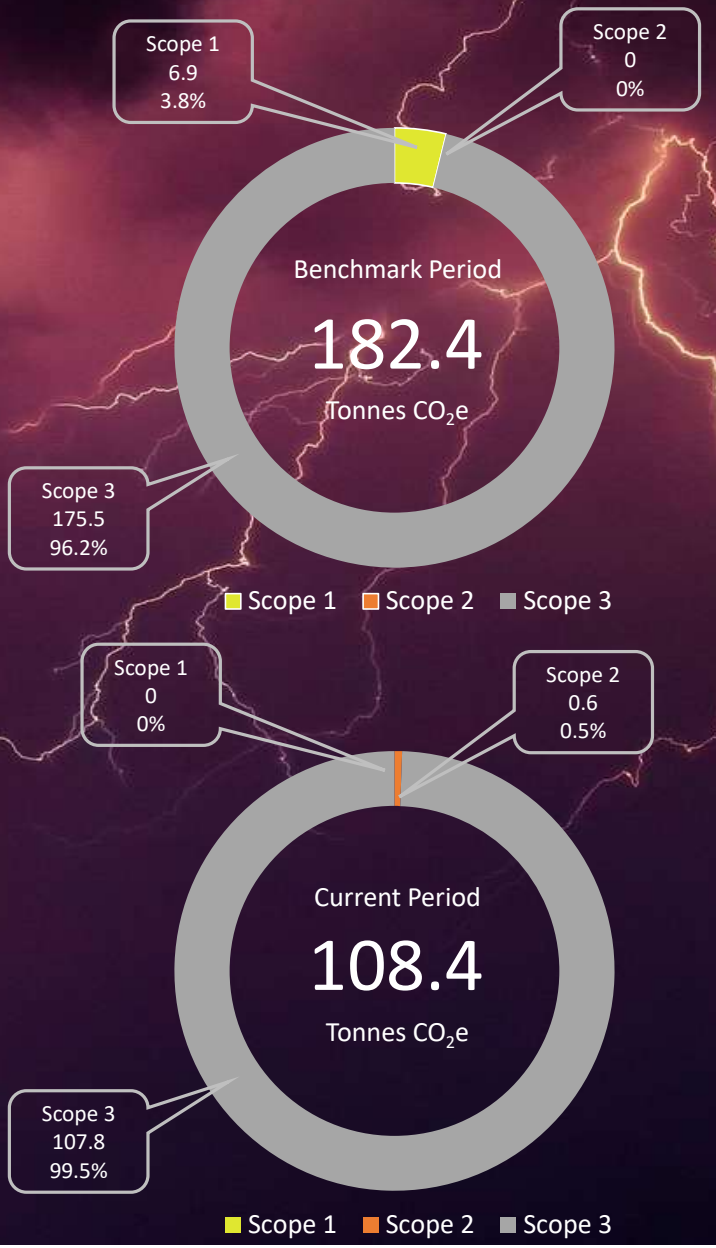
tCO_2e

- The total calculated emissions* for the group for the 2021-2022 benchmark period amounted to 182.4 tCO_2e and this has decreased to 108 tCO_2e in the 2024-2025 period, representing a reduction of 74 tCO_2e (40.6%).
- The reduction has been mainly driven by switching to green electricity and carbon neutral gas in 2023 and now benefiting from a full 12-month supply.

*The calculated emissions are based on the most up to date emissions factors at the time of the publication of this report. It should be noted that emissions factors are updated regularly and will be retrospectively applied. As such, emissions values may change when calculated in future years.

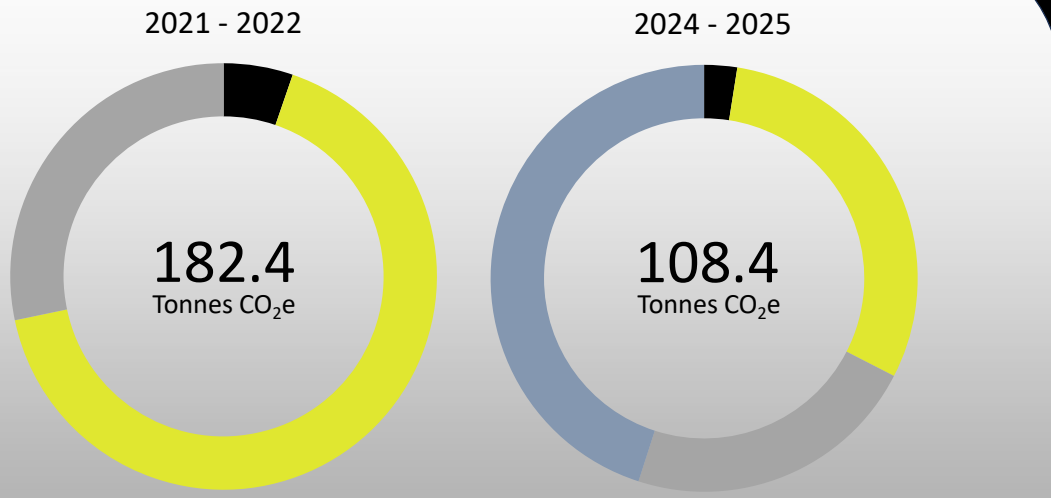
Analysis by Scope

Scope	Description	tCO2e	%
Scope 1	Scope 1 emissions include fuel used at company premises and company vehicles. The premises are on a renewable tariff	0.0	0.0%
Scope 2	Scope 2 emissions includes electricity used at company premises and company vehicles. The premises are on a renewable tariff	0.6	0.5%
Scope 3	Scope 3 emissions includes: • Business Travel • Employee commuting • Hotel Stays • Waste Disposal • Working from Home Electricity	107.8	99.5%
TOTAL		**108.4**	**100%**



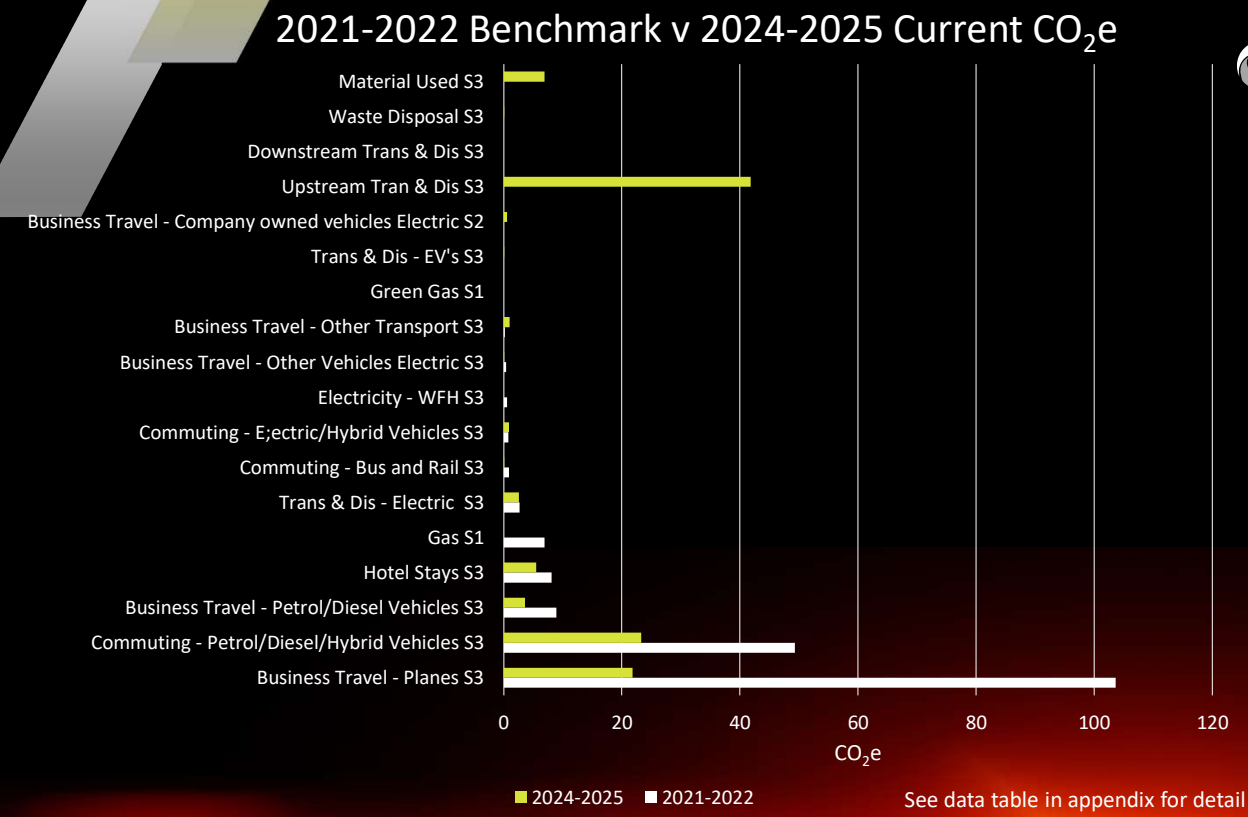
Reported Scope 3 emissions will increase in future years as more data and information becomes available.

Emissions by Activity tCO_2e



Approximately 40% of our CO_2e reported in 2025 was from our Upstream Transportation and Distribution driven by the supply of components airfreighted from India contributing to 41.8 tCO_2e of our total.

Emissions by Activity tCO_2e



See data table in appendix for detail

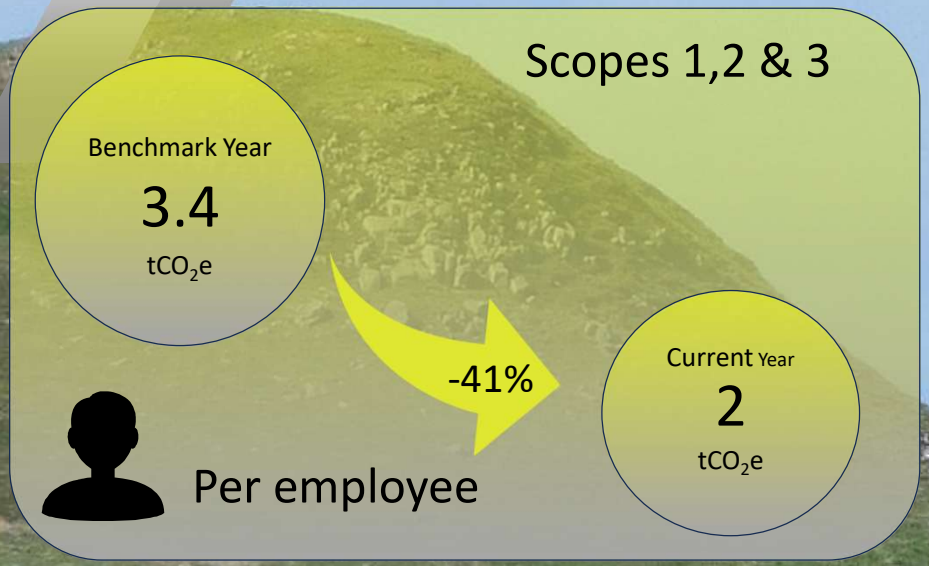
Emissions have decreased since the benchmark period across many activities due to several reasons including:-

- No longer have office in Thailand so flights\hotel stays have reduced in the AP region
- Moved to 100% renewable energy
- More accurate tracking of employee commuting – now captured monthly
- Leased an electric company van in 2023

Emissions by Activity tCO_2e

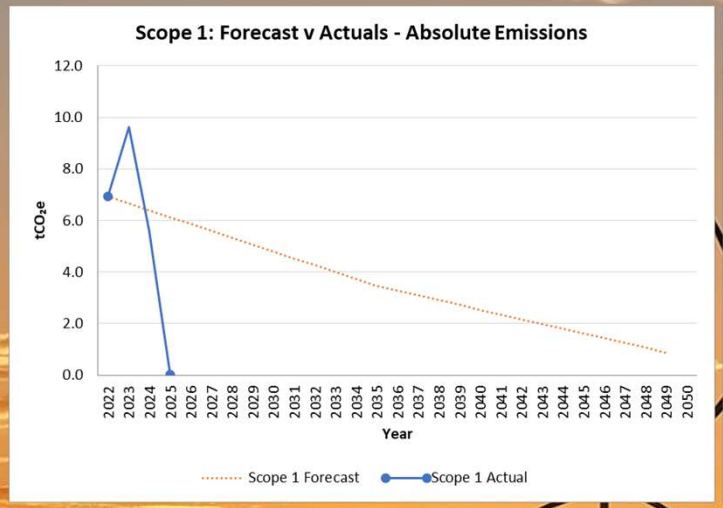
Data Details Emission Type	Scope	Benchmark Yr Dec 2021 Nov 2022 tCO_2e	Curent Yr Dec 2024 Nov 2025 tCO_2e	Difference	Data Source	Data Confidence
Energy						
Gas	1	6.9	-	-6.9	Gas Bills	High
Green Gas	1	-	0.0	0.0	Gas Bills	High
Transmission & Distribution - EVs	3	-	0.1	0.1	Electricity Bills	High
Transmission and Distribution of Electricity	3	2.7	2.6	-0.1	Electricity Bills	High
		9.6	**2.7**	-6.9		
Business Travel						
Business Travel - Company Owned Vehicles Electric	2	-	0.6	0.6	Mileage Data	High
Business Travel - Other Vehicles Electric	3	0.4	0.1	-0.3	Employee Survey	Medium
Business Travel - Petrol/Diesel Vehicles	3	8.9	3.6	-5.3	Employee Survey	Medium
Business Travel - Planes	3	103.6	21.8	-81.8	Employee Survey	Medium
Business Travel - Other Transport	3	0.2	1.0	0.8	Spend Analysis	Medium
Hotel Stays	3	8.1	5.5	-2.6	Company Records	High
		121.2	**32.6**	-88.6		
Employee Commuting						
Commuting - Petrol/Diesel/Hybrid Vehicles	3	49.3	23.3	-26.0	Employee Survey	Medium
Commuting - Electric/Hybrid Vehicles	3	0.8	0.9	0.1	Employee Survey	Medium
Commuting - Bus and Rail	3	0.9	0.1	-0.8	Employee Survey	Medium
Electricity - WFH	3	0.6	-	-0.6	Electricity Bills	High
		51.6	**24.3**	-27.3		
Other Emissions Calculated						
Upstream Transportation and Distribution	3	-	41.8	41.8	Company Records	High
Downstream Transportation and Distribution	3	-	-		Not yet measured	
Waste Disposal	3	-	0.1	0.1	Company Records	High
Material Used	3	-	6.9	6.9	Company Records	High
		-	**48.8**	48.8		
TOTAL		**182.4**	**108.4**	-74.0		

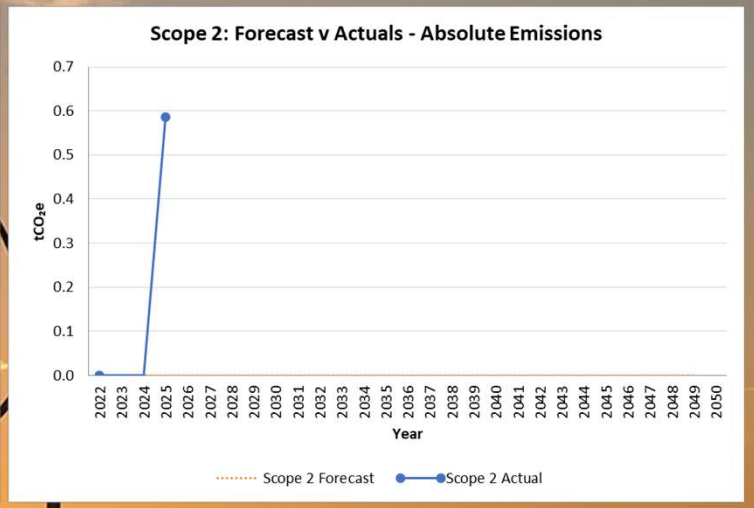
Intensity Metric Analysis

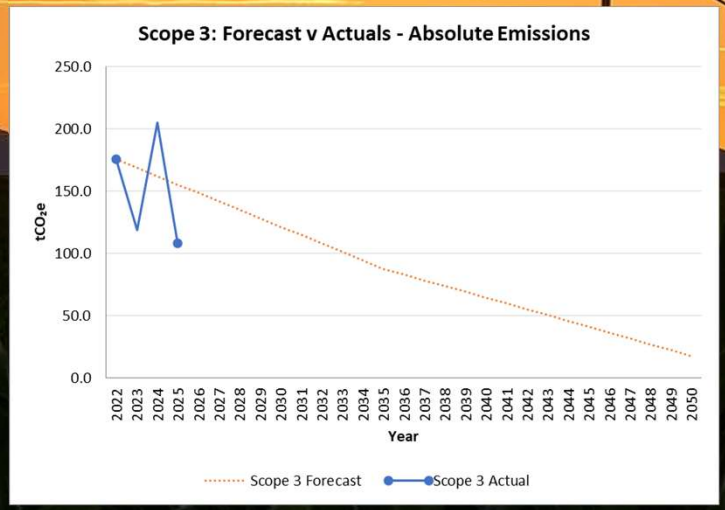


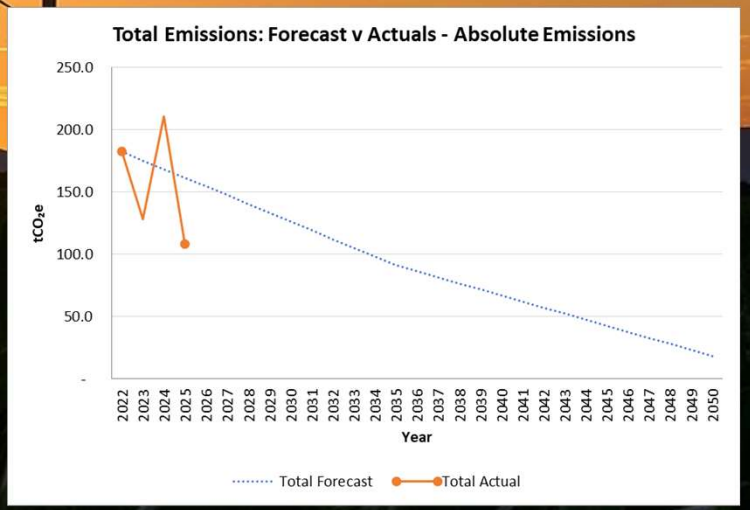
- The chosen intensity metric shows a carbon emissions value of **2.0 tCO_2e per employee.** The business headcount averaged 49 people during the benchmark period.
- Intensity metrics help normalise emissions data, taking into account variations in production levels or activity volumes. This allows for a more accurate assessment of emission trends over time, regardless of changes in business operations.

Emissions Reduction Targets







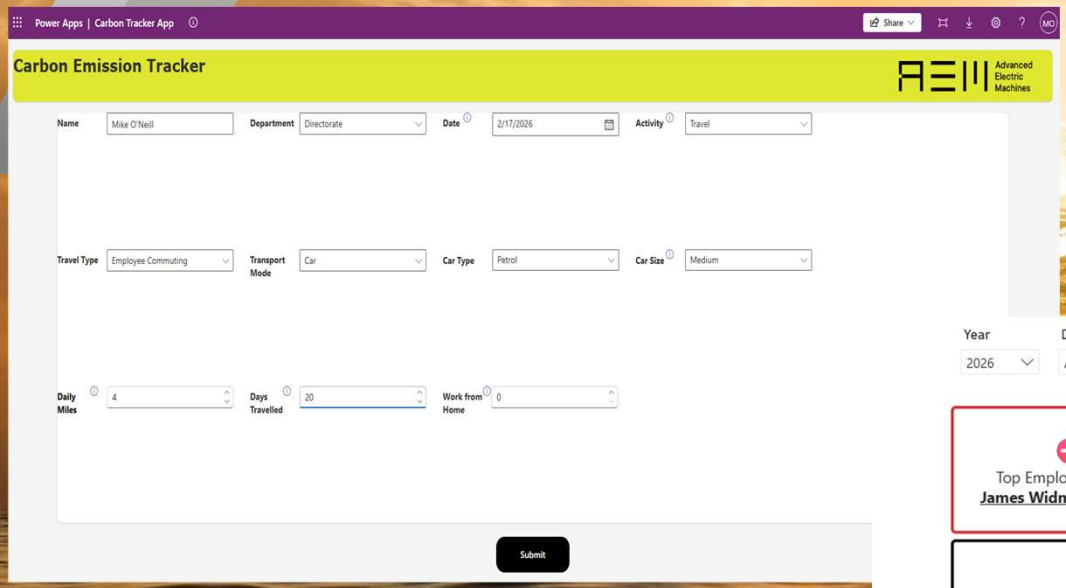


- These targets will be being mapped against actual emissions year by year to support ongoing strategies and decision making to achieve Net Zero by 2050.

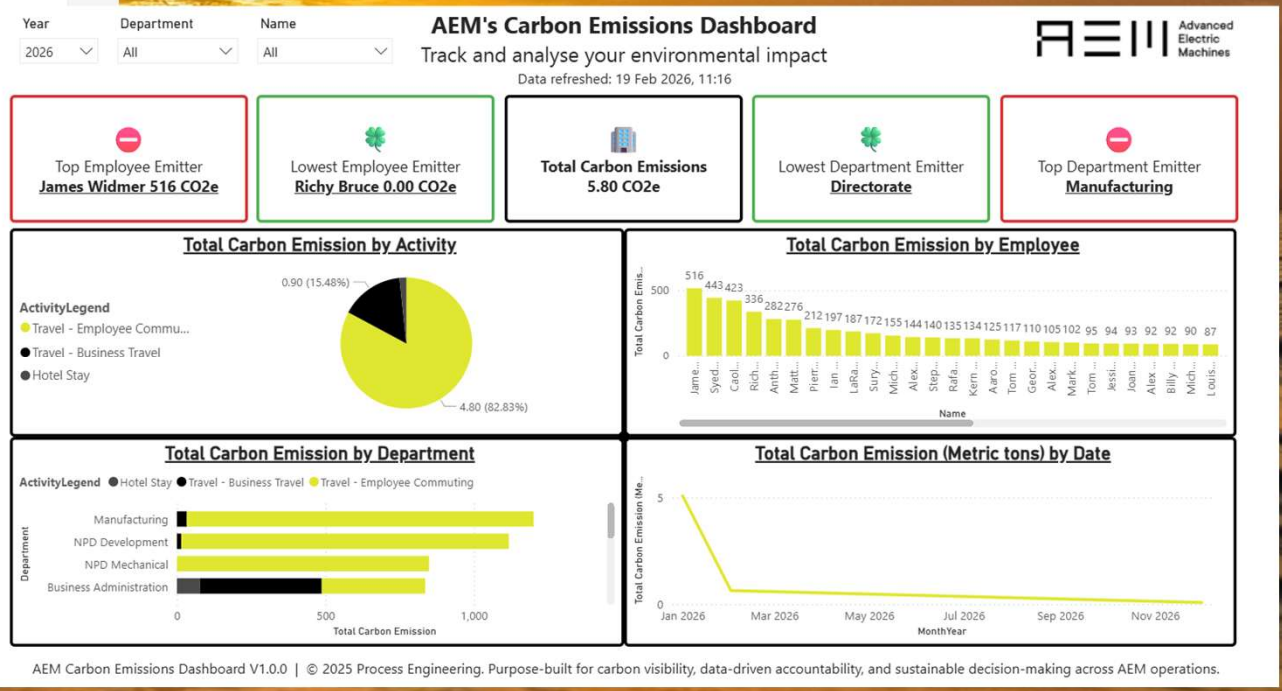
Note – Graph scales differ for resolution purposes

Progress Made in 2025

Improved Data Capture

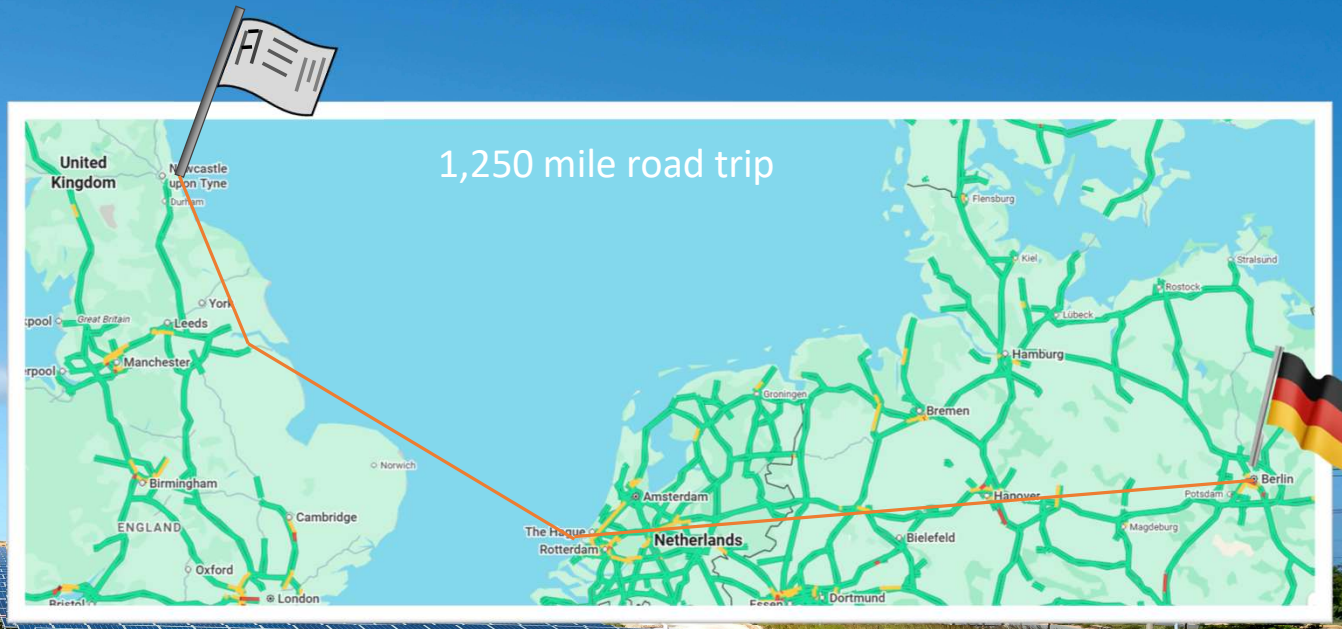


- As part of a wider employee engagement drive, in 2025 AEM developed our own Carbon Emissions Tracker.
- As well as business emissions being tracked via the app, employees now report on their own commuting and business trip emissions



Progress Made in 2025

Berlin Road Trip



- After the success of Business Development Director, Tom Elliott's road trip to Hannover in 2024, he once again packed up our ID Buzz and headed to Berlin at the end of 2025 for an exhibition in Berlin.
- Leading by example Tom saved us approximately 800 $KgCO_2e$ by doing this trip in our EV.

Progress Made in 2025

“Dr Bike”

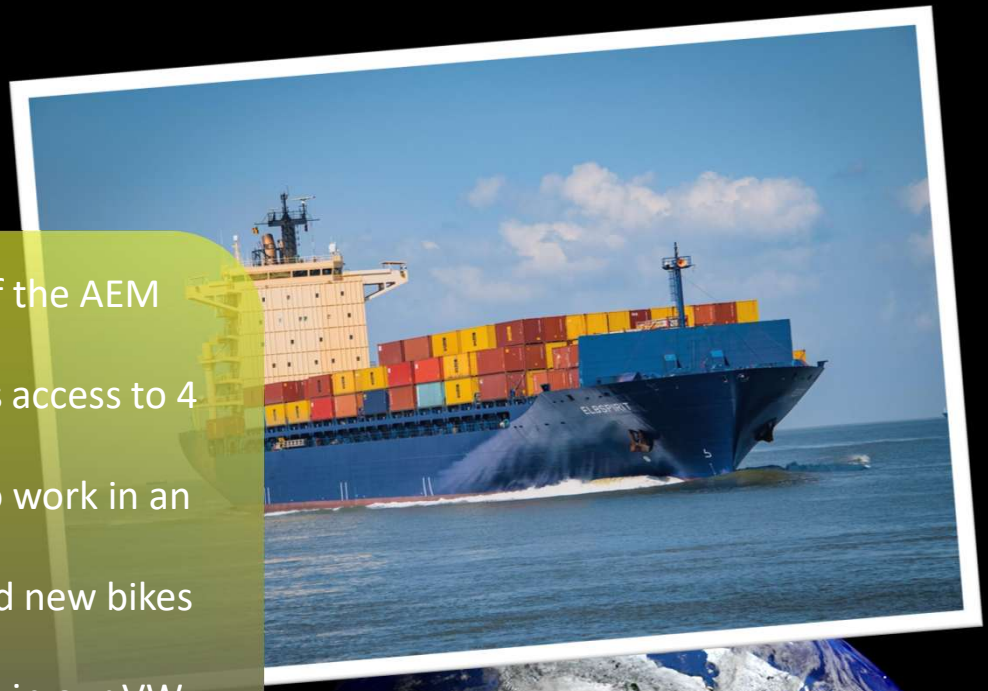
- Supported by Sunderland Councils Wear Wheels – “Dr Bike” serviced our teams bikes used for commuting and leisure cycling

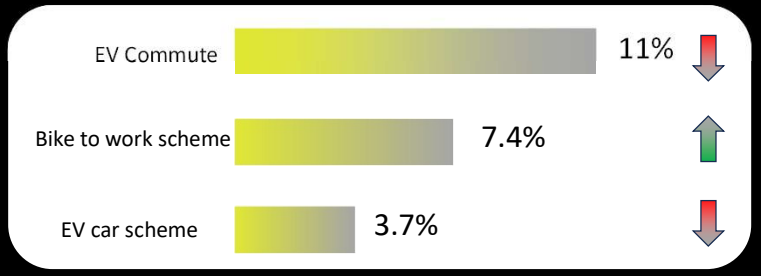
- AEM installed 4 new bike stands outside main reception meaning those who cycle to work get preferential parking

Progress Made in 2025

Transportation

- Almost 4% of staff take advantage of the AEM Tusker EV car scheme
- AEM continue to offer all employees access to 4 free charging points.
- 11% of employee's now commute to work in an EV.
- Over 7% of staff have now purchased new bikes using the bike to work scheme.
- AEM have clocked over 14,000 miles in our VW ID Buzz EV





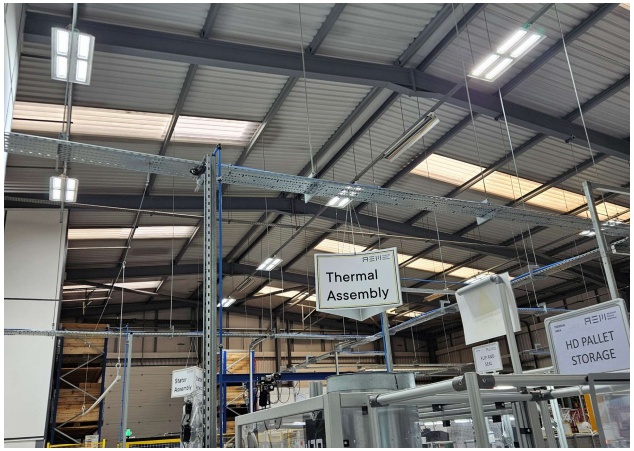
~% of staff
Arrow indicates change from 2024 data

Progress Made in 2025

Utilities & Facilities

- In 2024 we took the opportunity while changing energy provider, not only to remain with Green Electricity, but also chose a supplier who could provide Carbon Neutral Gas.
- This change has made a significant reduction in reported emissions for 2025

yü ENERGY



- Fluorescent light fittings replaced across the shopfloor with energy efficient LED units.
- Approx reduction in energy consumption is 8,300kWh P/A

- Smart lighting at assembly stations introduced.
- Lights automatically switch on and off depending upon operator presence at the station.

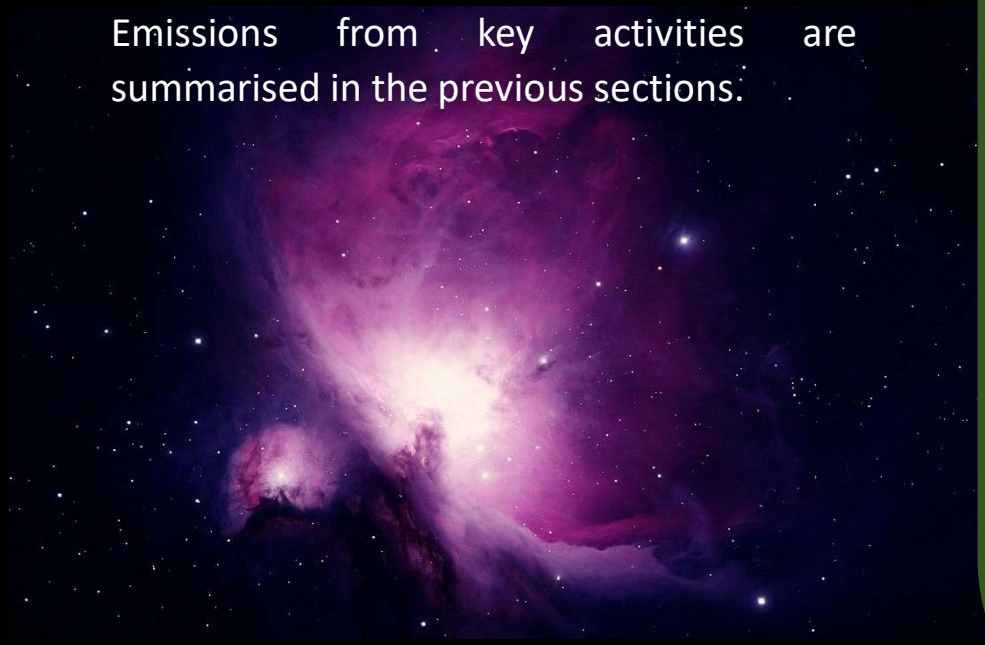
- 15 year old gas boiler with inefficient thermostatic and timer controls replaced with a more energy efficient unit with smart thermostat

Carbon Reduction Actions

Team Engagement	• Engage colleagues across the organisation • Report at monthly senior management meetings and at Board meetings • Prioritise in development of AEM Values & Culture • Work and related company-wide awareness raising activities
Business Travel Emissions	• Create a travel policy and continue to monitor and develop sustainable travel • Include emissions considerations in travel decision making • Encouraging lower carbon options where practical to do so.
Carbon Emissions Dashboard	• Update the carbon emissions dashboard monthly. • Expand Scope 3 data capture • Review current data collection & develop detailed improvement strategy • Report roadmap progress as part of business level KPI's.
Supply Chain Considerations	• Conduct a self assessment to our own Supplier Codes of Conduct Policy • Role out Code of Conduct across the supply chain
ISO 14001 Accreditation	• Further develop ISO 14001 accreditation awarded in 2024 to embed environmental culture across all levels of the business.
Business Growth	• Proactively monitor and adapt business activities as required to reflect the global slowdown in the EV market while maintaining our environmental commitments. • Achieve business targets utilising Indian supply chain without negatively impacting our overall carbon footprint.

Emissions Data

- The data contained in the table below represents total emissions calculated and is consistent with SECR requirements. All sources of emissions that have been measured are included in the totals below. Emissions from key activities are summarised in the previous sections.



	Benchmark Reporting Year Dec 21 - Nov 22	Current Reporting Year Dec 24 - Nov 25
Energy consumption used to calculate emissions Electricity Scope 2 - UK and Offshore (kWh)	150,565	143,787
Energy consumption used to calculate emissions – Global, excluding UK and Offshore (kWh)	N/A	N/A
Basis of Energy reporting (Location or Market)	Market	Market
% of total energy sourced from certified renewable sources	100%	100%
Emissions associated with energy consumption - UK, Offshore and Global (tCO_2e)	0.0	0.6
Emissions from activities for which the company is responsible including combustion of fuel and operation of facilities - Scope 1 (tCO_2e)	6.9	0.0
Emissions from purchase of electricity, heat, steam and cooling purchased for own use - Scope 2 (tCO_2e)	0.0	0.6
Total Scope 1 and 2 Emissions (tCO_2e)	6.9	0.6
Emissions from upstream activities out of operational control - Scope 3 (tCO_2e)	175.3	107.8
Emissions from use of sold products and services out of operational control - Scope 3 (tCO_2e)	None included	None included
Total Gross Scope 3 Emissions (tCO_2e)	175.3	107.8
Total Scope 1, 2 and 3 Emissions (tCO_2e)	182.2	108.4
Intensity ratio tCO_2e (gross Scope 1, 2 and 3) per employee	3.4	2.0
Carbon offsets (tCO_2e)	0.0	0.0
Total Annual Net Emissions (tCO_2e)	**182.2**	**108.4**

Standard and Methodology Used

AEM categorises its Greenhouse Gas (GHG) Emissions as Scope 1, 2 or 3 as referred to in the WBCSD – WRI Greenhouse Gas Protocol (revised edition, dated March 2014). Emissions in Carbon Dioxide equivalent (CO_2e) for all scopes are calculated using the conversion factors listed in DESNZ Greenhouse Gas Conversion Factors for the relevant 12-month period over which the Carbon emissions are calculated. Procured renewable electricity and gas is calculated in accordance with the WBCSD – WSI Scope 2 Guidance on procured renewable energy (2015).

Data Quality / Confidence

The data used to generate this report has been collected from various sources from both within the company and using assumptions gathered by Net Zero International. These emissions have been converted to CO_2e using GHG Protocol and DESNZ frameworks and conversion factors for the relevant period.

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with SECR, 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 agreed by the board of directors (or equivalent management body).

Signed on behalf of
Advanced Electric Machines

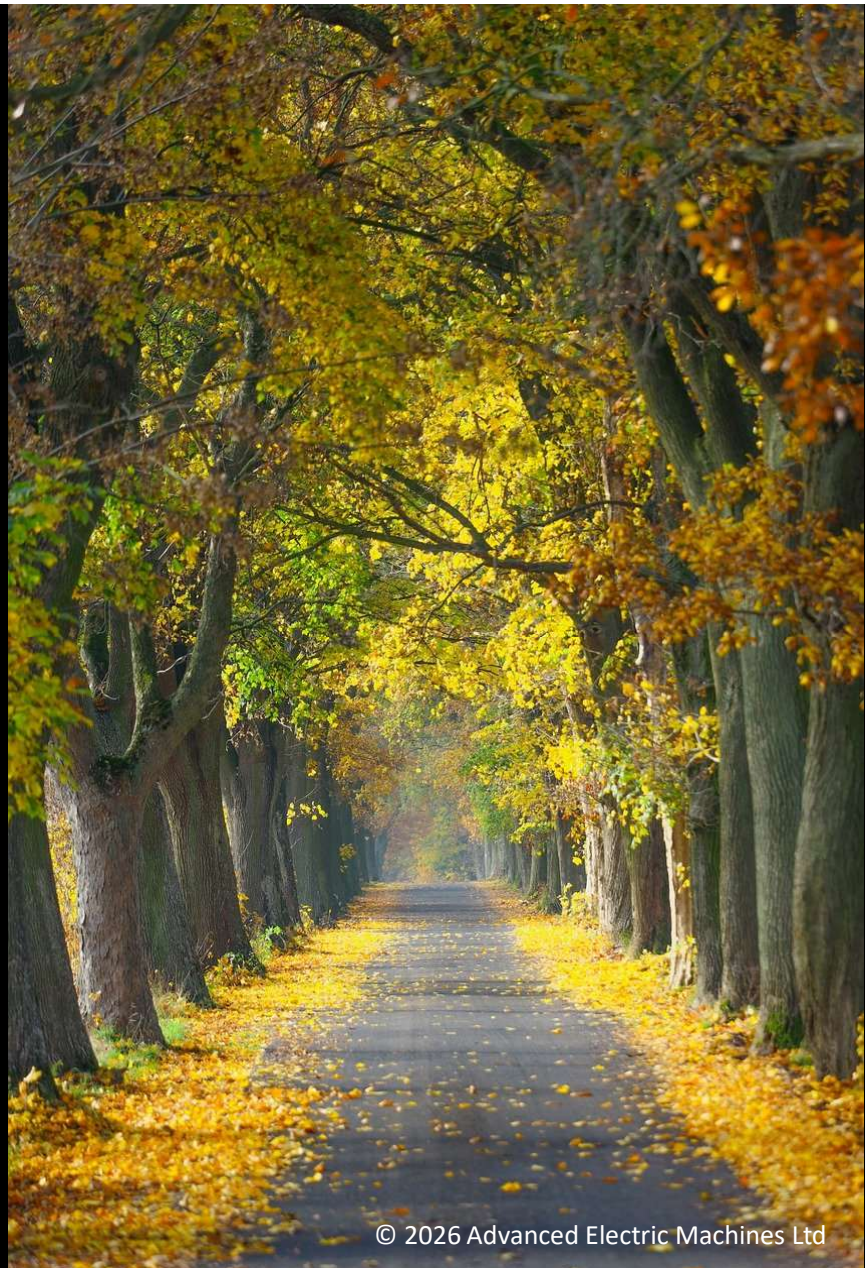
Name: James Widmer
Position: CEO
Date: 24/2/26

Signed on behalf of
Net Zero International

Name: David Hawes
Position: CEO
Date:24/2/26

Glossary

Benchmark Data	The chosen 12-month period that sets the calculated emissions that need to be mitigated and/or offset.
Carbon Reduction	Reduction in measured CO_2e emissions
Carbon Reduction Plan	Plan to reduce CO_2e emissions over a period of time, updated annually
Carbon Emissions (Gross)	CO_2e emissions from Company activities
Carbon Emissions (Net)	CO_2e emissions from Company activities minus verified carbon offsets the Company purchases
Carbon Neutral	When emissions are fully offset including those emissions that could be mitigated.
Carbon Offsets	A removal or reduction of carbon emissions through a verified scheme.
CO_2e	All greenhouse gases expressed in terms of Carbon Dioxide equivalent (CO_2e) for consistency of reporting.
DESNZ	Department of Energy Security and Net Zero (https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting)
EEIO	Environmentally Extended Input Output – Emissions estimated on spend https://ghgprotocol.org/
Organisational Boundaries	GHG Protocol Organisational Boundaries https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf
GHG Protocol	Greenhouse Gas Protocol https://ghgprotocol.org/
Greenhouse Gases	Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O), Chlorofluorocarbons (CFCs and HCFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF_6)
Greenhouse Gas Conversion Factors	Annually published conversion factors normally published by relevant government departments. Converts activity into CO_2e emissions.
Greenhouse Gas Emissions (GHG)	Gases in the atmosphere that absorb and radiate heat
Intensity Metric/Ratio	A metric that measures carbon emissions per relevant unit of activity in a business.



Glossary

Market Reporting v Location Reporting	Market is based on specific tariffs. Location is based on the country from which you are reporting.
Net Zero	GHG emissions are mitigated and those that cannot are offset
Renewable Tariff	An energy tariff that is 100% powered by renewable energy and is certified.
SBT	Science Based Targets – reducing emissions by 50% by 2030 and by 90% by 2050 and offsetting the remaining amount.
Scope 1	The fuels that are burnt (gas, transport the company owns, refrigerant gases)
Scope 2	The energy that is bought (electricity from the grid, purchased heat)
Scope 3	Emissions embedded in everything a company buys and emitted as a consequence of everything a company sells.
SECR	Streamlined Energy and Carbon Reporting
tCO_2e	Metric tonnes of CO_2 equivalent emitted.
WBCSD	World Business Council for Sustainable Development https://www.wbcsd.org/
WRI	World Resource Institute https://www.wri.org/

Credits

Net Zero International	Data analysis & preparation
Pexels & Pixabay	Photos
Slides Carnival	Photos