



## CARBON REDUCTION PLAN



Prepared by:



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# A&L Mechanical Carbon Emissions Report

## Table of Contents

1	Net Zero Commitment .....	3
2	Background Information .....	4
3	Carbon Emissions Overview .....	6
4	Analysis by Scope .....	6
5	Emissions by Activity .....	7
6	Intensity Metric Analysis .....	8
7	Emissions Reductions Targets .....	8
8	Carbon Reduction Actions .....	9
9	Emissions Data .....	10
10	Standard and Methodology Used .....	11
11	Data Quality / Confidence .....	11
12	Declaration and Sign Off.....	11
13	Glossary.....	12

# A&L Mechanical Carbon Emissions Report

## 1 Net Zero Commitment

**A&L Mechanical** have made a maximum commitment to Net Zero by investing a significant amount of time and resources, advocating the business advantages of embracing Net Zero as a business opportunity. Their advocacy has led to the rapid evolution of this Net Zero ecosystem now supported by public sector groups and supply chain owners.

The aims of this program are meeting the UN Race to Zero objectives to Pledge, Plan, Progress, Publish and Persuade and in so doing, being a Climate Champion. Working within cohorts of companies they collaborate and support each other on their journey. They inspire each other to implement circular and sustainable practices that make their business more planet positive and propel them towards their Net Zero ambitions.

One of the key outcomes of this program is being an advocate for Net Zero to inspire the wider business community to embrace it as a gateway to business growth to make their business stronger, be more competitive within the supply chains they serve and attract the future workforce to join them.

As a Year 2 company in the Net Zero Nation ecosystem, **A&L Mechanical** is actively influencing and supporting the next generation of companies in creating a clearly defined pathway to Net Zero aligned with Science Based Targets. They are supporting companies within their supply chains and several cohorts on Accelerators across the United Kingdom, significantly contributing to the Net Zero Transition and creating social impact as a result.

**Net Zero Nation** is a Scottish based social enterprise with a partner network across the United Kingdom. The mission of Net Zero Nation is to help SMEs go further and faster towards their Net Zero goals, tackling climate change. Achieved by mass mobilising SMEs on the Net Zero journey to ensure none are left behind and they fully gain the economic advantages in embracing it as a business imperative. The organisation aims to help regions and communities across the UK become fully capable in delivering the Net Zero Transition by involving all stakeholders across the public, private and academic sectors to drive decarbonisation efforts.

Net Zero Nation helps companies who need carbon certification to bid on contracts, supply chain owners and public sector bodies looking to rapidly gain carbon transparency to meet their own carbon reduction targets in procurement and investment.

**Net Zero International** is a delivery partner of Net Zero Nation with deep expertise in producing carbon accounts and reduction plans aligned with international standards. They have been working with Net Zero

**A&L Mechanical** recognises the importance of making a full and lasting commitment to reducing the greenhouse gas emissions from our activities, in support of the wider commitment of the world to limit global temperature increases and the impact on the planet.

We commit to the following:

1. For our company 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 2030.
2. To set realistic short- and long-term targets that are designed to achieve our Net Zero commitments.
3. To report the total Greenhouse Gas emissions of our business, at a minimum, on an annual basis.

	Year	Earlier Year if Possible
<b>Commitment to be Net Zero</b>	2050	2045*
<b>50% Emissions Reduction</b>	2030	

\*In line with Scotland's Net Zero strategy

# A&L Mechanical Carbon Emissions Report

## 2 Background Information

### 2.1 Company

**A&L Mechanical** is a Limited Company registered in Scotland, company number SC244215, with a head office address of The Station, Crosshouse Road, Kilmaurs, Kilmarnock KA3 2TU, United Kingdom.

**A&L Mechanical** is an accredited, award-winning, Mechanical and Electrical Engineering contractor. Formed in March 2003, the focus of the business is to provide Mechanical & Electrical Installations within the Water Industry and to establish a Client Base by providing Quality, Service & Value. The Company has gone from strength to strength and continues to develop and grow by delivering innovative solutions and installations for many Clients across the UK.

A&L Mechanical Installations Ltd was incorporated in June 1990, initially securing several small mechanical installation sub-contracts within the Water Industry. Our competitive pricing led to a steady influx of sub-contracts from leading Water Engineering Contractors. The primary focus of the business has always been to deliver Mechanical Installation Engineering Solutions within the Water Industry while establishing a client base built on Quality, Service, and Value.

In just five years, we made significant progress, developing a more established client base. By 1995, A&L began to gain recognition within the Water Sector. Between 1995 and 1999, our reputation for consistent Quality and Service grew, opening up new opportunities in Scotland and resulting in several new clients and contracts.

Since 2005, we have concentrated on Scottish Water's Capital Investment Programmes, becoming a well-known Framework Contractor and Delivery Partner. Our consistent delivery of engineering solutions and installations has led to year-on-year growth, with Frameworks secured throughout Scotland.

In 2021, we established our Welding and Fabrication Division to support the needs of our mechanical projects. This division has seen extensive growth and investment, achieving BS EN 1090 certification, which allows us to provide fabrication solutions not only to the water sector but across various industries in the UK.

In 2023, through strategic acquisition, A&L Mechanical Installations Ltd secured an electrical framework with Scottish Water. This has enabled us to develop a fully operational electrical division, delivering electrical projects across the sector and gaining NIC-EIC accreditation.

In recent years, the business has continued to evolve and improve. In 2018, we implemented a revised business strategy that included restructuring, rebranding, and expanded marketing efforts. We acquired larger premises and made significant investments in the growth and development of the business. Our focused efforts to increase our presence throughout the UK and Ireland have been highly successful, resulting in award-winning recognition, accreditation, and an enhanced reputation within the Water Industry.

<b>Reporting Period</b>	<b>Previous Period</b> March 2022 – February 2023	<b>Current Period</b> March 2023 – February 2024
<b>Industry</b>	<b>Engineering</b>	<b>Engineering</b>
<b>No. of Staff</b>	43	50
<b>No. of Premises Owned</b>	1	1
<b>No. of Premises Leased</b>	1	1
<b>No. of Company Vehicles - Owned</b>	17	17
<b>No. of Company Vehicles - Leased</b>	0	0

# A&L Mechanical Carbon Emissions Report

## 2.2 Current Reporting Period

March 2023 – February 2024

## 2.3 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
<b>Operational Control</b>	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.	✓
<b>Financial Control</b>	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.	
<b>Equity Share</b>	The organisation accounts for GHG emissions from operations according to its share of equity in the operation.	

## 2.4 Benchmark Year

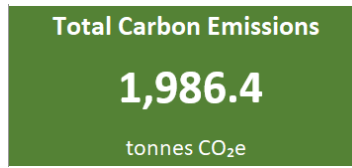
The organisation's benchmark year is from **March 2022 – February 2023**. This is the second time the organisation has measured and reported on its carbon emissions.

## 2.5 Methodologies Used

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

# A&L Mechanical Carbon Emissions Report

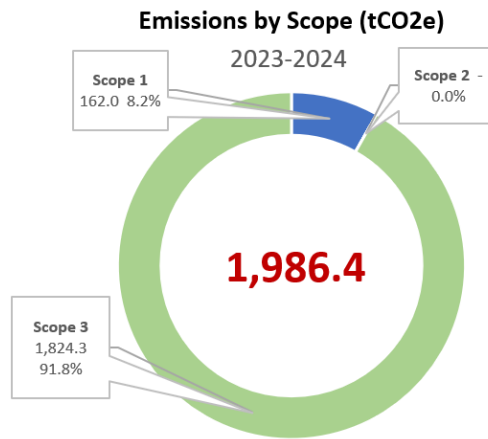
## 3 Carbon Emissions Overview



The total calculated emissions for the business for the period 2023-2024 are 1,986.4 tCO<sub>2</sub>e.

The Company will aim to measure an increasing amount of Scope 3 emissions and is committed to reducing their emissions across all scopes.

## 4 Analysis by Scope

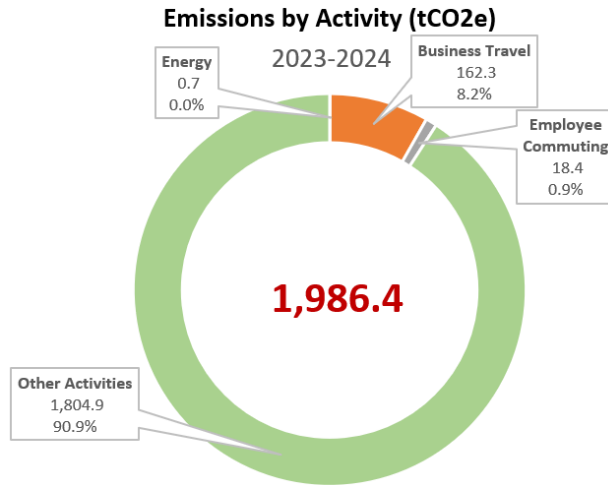


Scope	Description	tCO <sub>2</sub> e	%
<b>Scope 1</b>	Scope 1 emissions includes fuel from company vehicles and fuels used in the company premises, including propane and heating oil.	162.0	8.2%
<b>Scope 2</b>	Emissions in scope 2 includes electricity used at the company's office. The office is on a renewable tariff.	0.0	0.0%
<b>Scope 3</b>	Scope 3 emissions include: <ul style="list-style-type: none"> <li>• Waste</li> <li>• Employee Commuting</li> <li>• Transmission and Distribution of Electricity</li> <li>• Business Travel</li> <li>• Other Emissions Calculated</li> </ul>	1,824.3	91.8%
<b>TOTAL</b>		<b>1,986.4</b>	<b>100%</b>

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

# A&L Mechanical Carbon Emissions Report

## 5 Emissions by Activity





Data Details		2022-2023	2023-2024		
Emission Type	Scope	tCO <sub>2</sub> e	tCO <sub>2</sub> e	Data Source	Data Confidence
<b>Energy</b>					
Gas	1	-	-	Gas Bills	High
Electricity	2	-	-	Electricity Bills	High
Transmission and Distribution	3	1.0	0.7	Electricity Bills	High
		<b>1.0</b>	<b>0.7</b>		
<b>Business Travel</b>					
Car - Diesel	1	152.3	162.0	Company records	High
Taxis and Ferry	3	0.2	0.1	Mileage data	High
Planes Travel	3	-	0.1	Mileage data	High
		<b>152.5</b>	<b>162.3</b>		
<b>Employee Commuting</b>					
Car - Petrol	3	5.4	3.8	Employee Survey	Medium
Car - Diesel	3	13.3	14.0	Employee Survey	Medium
Car - Electric & Hybrid	3	0.7	0.6	Employee Survey	Medium
		<b>19.5</b>	<b>18.4</b>		
<b>Other Emissions Calculated</b>					
Textiles and Textile Products	3	11.4	30.8	EEIO Spend Analysis	Medium
Wood and Products of Wood and Co	3	2.7	9.7	EEIO Spend Analysis	Medium
Pulp, Paper, Printing & Publishing	3	0.5	4.9	EEIO Spend Analysis	Medium
Chemicals and Chemical Products	3	3.8	49.2	EEIO Spend Analysis	Medium
Rubber and Plastics	3	3.9	253.6	EEIO Spend Analysis	Medium
Basic Metals and Fabricated Metal	3	265.5	1,007.8	EEIO Spend Analysis	Medium
Machinery (not elsewhere classified)	3	3.8	77.2	EEIO Spend Analysis	Medium
Electrical and Optical Equipment	3	15.2	30.2	EEIO Spend Analysis	Medium
Hotels & Restaurants	3	81.6	97.9	EEIO Spend Analysis	Medium
Inland Transport	3	80.7	75.4	EEIO Spend Analysis	Medium
Air Transport	3	9.7	2.1	EEIO Spend Analysis	Medium
Pensions	3	17.4	40.6	EEIO Spend Analysis	Medium
Purchased vehicles	3	-	2.8	EEIO Spend Analysis	Medium
Other Business Activities	3	18.0	122.5	EEIO Spend Analysis	Medium
Waste Disposal	3	-	0.1	EEIO Spend Analysis	Medium
Real Estate Activities	3	3.1	-	EEIO Spend Analysis	Medium
		<b>517.4</b>	<b>1,804.9</b>		
<b>TOTAL</b>		<b>690.4</b>	<b>1,986.4</b>		

# A&L Mechanical Carbon Emissions Report

## 6 Intensity Metric Analysis

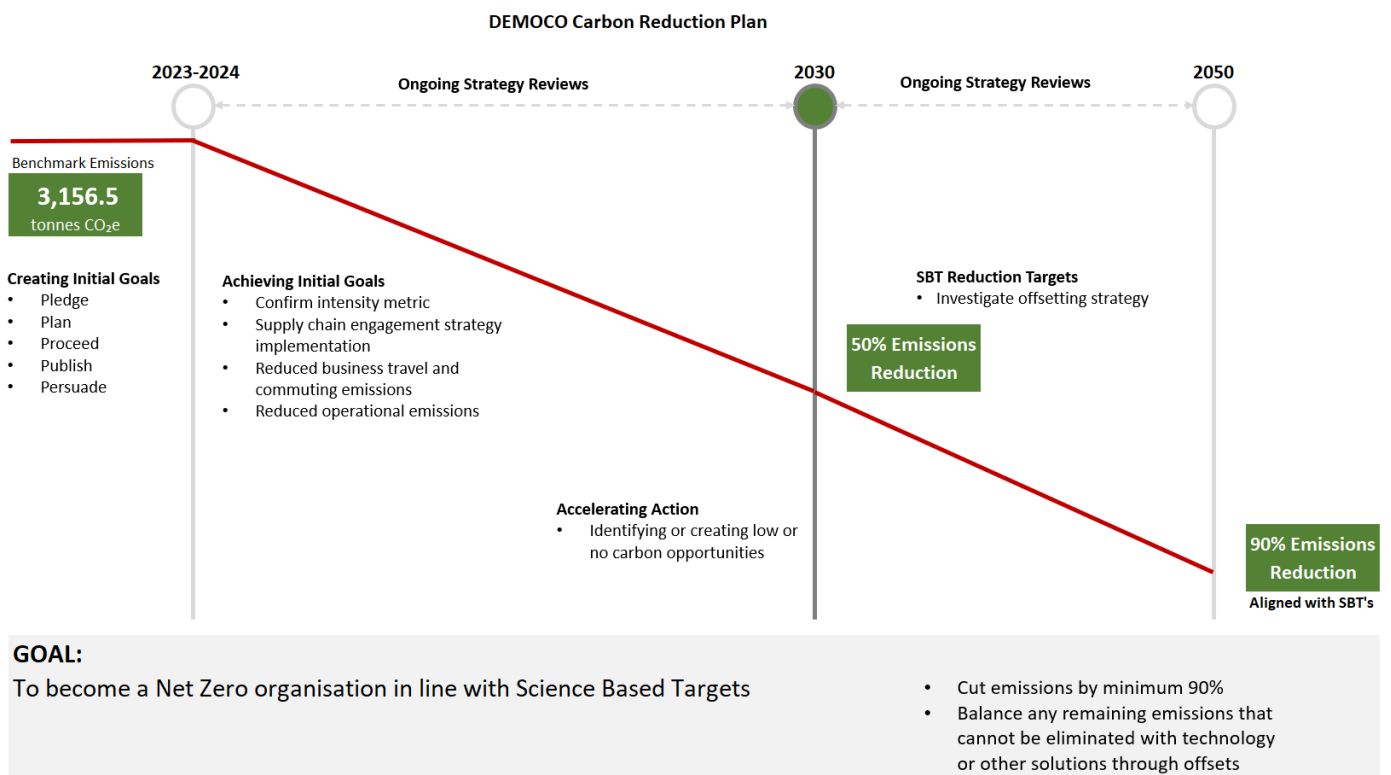
Intensity metrics help normalise emissions data, taking into account variations in production levels or activity volumes. This allows for a more accurate assessment of emission trends over time, regardless of changes in business operations. The initial intensity metrics for the company are below and will be used for comparative purposes in following years.

Intensity Metrics (tonnes CO <sub>2</sub> e)	
2023-2024	
 Per Employee	Scopes 1, 2 & 3 44.0
2023-2024	
 Per £'000 Turnover	Scopes 1, 2 & 3 3.6

The chosen intensity metrics shows a carbon emissions value of **44.0 tCO<sub>2</sub>e per employee** and **3.6 tCO<sub>2</sub>e per £1,000 of turnover**. The business headcount averaged 16 people during the benchmark period.

## 7 Emissions Reductions Targets

The following graph summarises the carbon emissions reduction targets.





## A&L Mechanical Carbon Emissions Report

### 8 Carbon Reduction Actions

A&L Mechanical will develop the following initiatives that will support the company's strategies to meet Science Based Targets:

Initiative	Action
<b>Net Zero Nation Accelerator</b>	<ul style="list-style-type: none"> <li>○ A&amp;L Mechanical have continued with the Net Zero Nation Accelerator on a 12-month program to measure, manage and reduce business emissions in collaboration with other organisations and as part of a wider business initiative.</li> </ul>
<b>Sustainable travel policy</b>	<ul style="list-style-type: none"> <li>○ Ensuring the team use public and low carbon transport options when practical to do so.</li> <li>○ Car share for business trips or utilise lower carbon alternatives</li> <li>○ Use of tracker system to promote more efficient fuel use (including idling and harsh braking)</li> <li>○ Switch to Online Meetings and Online Events where possible</li> </ul>
<b>Employee engagement</b>	<ul style="list-style-type: none"> <li>○ Sharing our plan with all the team and sharing the initial report to ensure understanding of our current emissions and involving the team in some of the solutions.</li> <li>○ To investigate the creation of a ESG focus group to drive change and the culture within the business.</li> <li>○ To get involved in local initiatives (i.e., litter picking, educational sessions).</li> </ul>
<b>Sustainable supplier policy</b>	<ul style="list-style-type: none"> <li>○ To create a framework to launch our sustainable procurement policy in 2024.</li> <li>○ Commit to using Sustainable suppliers.</li> </ul>
<b>Sustainable company car policy (electric car feasibility)</b>	<ul style="list-style-type: none"> <li>○ To investigate the practicality of introducing electric vehicles into the fleet – this review was carried out in 2024 and that point was not deemed to be operationally or financially viable. We will continue to investigate the options as newer options come to market and the market matures.</li> <li>○ Investigate alternative sustainable fuel sources – we have had conversations with Scottish Water re: HVO accessibility and continue to investigate possible solutions.</li> </ul>
<b>Ongoing</b>	<ul style="list-style-type: none"> <li>○ To improve the quality and accuracy of data to ensure more accurate measurement of our emissions. We have demonstrated improved transparency of data and involved more team members in capturing new data points as we strive to reduce more aspects of our operational carbon.</li> </ul>

Signed on behalf of A&L Mechanical

Name: **Jim McRobert**



Position: **Managing Director**

Date: 27<sup>th</sup> November 2024

## A&L Mechanical Carbon Emissions Report

### 9 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.

	Previous Reporting Year <b>Mar 22 - Feb 23</b>	Current Reporting Year <b>Mar 23 - Feb 24</b>
Energy consumption used to calculate emissions Electricity Scope 2 - UK and Offshore (kWh)	55,389	39,073
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 <sub>2</sub> e)	-	-
Emissions from activities for which the company is responsible including combustion of fuel and operation of facilities - <b>Scope 1</b> (tCO <sub>2</sub> e)	152.3	162.0
Emissions from purchase of electricity, heat, steam and cooling purchased for own use - <b>Scope 2</b> (tCO <sub>2</sub> e)	-	-
<b>Total Scope 1 and 2 Emissions (tCO<sub>2</sub>e)</b>	<b>152.3</b>	<b>162.0</b>
Emissions from upstream activities out of operational control - Scope 3 (tCO <sub>2</sub> e)	538.1	1,824.3
Emissions from use of sold products and services out of operational control - <b>Scope 3</b> (tCO <sub>2</sub> e)	None included	None included
<b>Total Gross Scope 3 Emissions (tCO<sub>2</sub>e)</b>	<b>538.1</b>	<b>1,824.3</b>
<b>Total Scope 1, 2 and 3 Emissions (tCO<sub>2</sub>e)</b>	<b>690.4</b>	<b>1,986.4</b>
Intensity ratio tCO <sub>2</sub> e (gross Scope 1, 2 and 3) per employee	15.3	44.0
Carbon offsets (tCO <sub>2</sub> e)	-	-
<b>Total Annual Net Emissions (tCO<sub>2</sub>e)</b>	<b>690.4</b>	<b>1,986.4</b>

\* A location-based method reflects the average emissions intensity of grids on which energy consumption occurs (using mostly grid-average emission factor data). A market-based method reflects emissions from electricity that companies have purposefully chosen.

# A&L Mechanical Carbon Emissions Report

## 10 Standard and Methodology Used

**A&L Mechanical** 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<sub>2</sub>e) 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).

## 11 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<sub>2</sub>e using GHG Protocol and DESNZ frameworks and conversion factors for the relevant period.

## 12 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 Net Zero International**

Name: **David Hawes**

Position: **Chief Executive Officer**

Date: 25<sup>th</sup> November 2024

**Signed on behalf of Net Zero Nation**

Name: **Steven Turner**

Position: **Chief Executive Officer**

**A&L Mechanical**  
**Carbon Emissions Report**

**13 Glossary**

<b>Benchmark Data</b>	The chosen 12-month period that sets the calculated emissions that need to be mitigated and/or offset.
<b>Carbon Reduction</b>	Reduction in measured CO <sub>2</sub> e emissions
<b>Carbon Reduction Plan</b>	Plan to reduce CO <sub>2</sub> e emissions over a period of time, updated annually
<b>Carbon Emissions (Gross)</b>	CO <sub>2</sub> e emissions from Company activities
<b>Carbon Emissions (Net)</b>	CO <sub>2</sub> e emissions from Company activities minus verified carbon offsets the Company purchases
<b>Carbon Neutral</b>	When emissions are fully offset including those emissions that could be mitigated.
<b>Carbon Offsets</b>	A removal or reduction of carbon emissions through a verified scheme.
<b>CO<sub>2</sub>e</b>	All greenhouse gases expressed in terms of Carbon Dioxide equivalent (CO <sub>2</sub> e) for consistency of reporting.
<b>DESNZ</b>	Department of Energy Security and Net Zero ( <a href="https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting">https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting</a> )
<b>EEIO</b>	Environmentally Extended Input Output – Emissions estimated on spend <a href="https://ghgprotocol.org/">https://ghgprotocol.org/</a>
<b>Organisational Boundaries</b>	GHG Protocol Organisational Boundaries <a href="https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf">https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf</a>
<b>GHG Protocol</b>	Greenhouse Gas Protocol <a href="https://ghgprotocol.org/">https://ghgprotocol.org/</a>
<b>Greenhouse Gases</b>	Carbon Dioxide (CO <sub>2</sub> ), Methane (CH <sub>4</sub> ), Nitrous Oxide (N <sub>2</sub> O), Chlorofluorocarbons (CFCs and HCFCs), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs), Sulphur Hexafluoride (SF <sub>6</sub> )
<b>Greenhouse Gas Conversion Factors</b>	Annually published conversion factors normally published by relevant government departments. Converts activity into CO <sub>2</sub> e emissions.
<b>Greenhouse Gas Emissions (GHG)</b>	Gases in the atmosphere that absorb and radiate heat
<b>Intensity Metric/Ratio</b>	A metric that measures carbon emissions per relevant unit of activity in a business.
<b>Market Reporting v Location Reporting</b>	Market is based on specific tariffs. Location is based on the country from which you are reporting.
<b>Net Zero</b>	GHG emissions are mitigated and those that cannot are offset
<b>Renewable Tariff</b>	An energy tariff that is 100% powered by renewable energy and is certified.
<b>SBT</b>	Science Based Targets – reducing emissions by 50% by 2030 and by 90% by 2050 and offsetting the remaining amount.
<b>Scope 1</b>	The fuels that are burnt (gas, transport the company owns, refrigerant gases)
<b>Scope 2</b>	The energy that is bought (electricity from the grid, purchased heat)
<b>Scope 3</b>	Emissions embedded in everything a company buys and emitted as a consequence of everything a company sells.
<b>SECR</b>	Streamlined Energy and Carbon Reporting
<b>tCO<sub>2</sub>e</b>	Metric tonnes of CO <sub>2</sub> equivalent emitted.
<b>WBCSD</b>	World Business Council for Sustainable Development <a href="https://www.wbcsd.org/">https://www.wbcsd.org/</a>
<b>WRI</b>	World Resource Institute <a href="https://www.wri.org/">https://www.wri.org/</a>