Greenhouse Gas Emissions Inventory and Decarbonisation Strategy to Achieve Net Zero

Go Green Experts

For the period of

1st January to 31st December 2024

March 2025

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About This Report

This report contains the carbon footprint of Go Green Experts (GGE) for the reporting period 01/01/2024 – 31/12/2024. The purpose of this report is to disseminate the inventory of greenhouse gas (GHG) emissions with great attention to the accounting principles of relevance, accuracy, consistency, completeness and transparency.

This report is intended for all stakeholders interested in the GHG emissions inventory and the associated reporting structure and explanations.

This report:

- Covers the footprint for all entities within operational control of GGE.
- Has been prepared in accordance with the requirements of the Greenhouse Gas Protocol reporting standards (Corporate Accounting and Reporting Standard, 2004; Corporate Value Chain Accounting and Reporting Standard, 2011).
- Endeavours to use primary data wherever possible but especially surrounding all major emissions sources. Where primary data is not available, a consistent and conservative approach to calculation is applied.
- Excludes specific targets or forecasts as well as reports on GHG removals and offsets.

The reporting period covered in this document is 12 months; the period of the next iteration of this footprint is expected to be of the same length, starting from the first day following this reporting period. Any deviation from this will be mentioned in communication at the time of publication.

Foreword

At Go Green Experts (GGE), we support businesses to measure, understand and reduce their environmental impact. Since 2019, we have helped our clients to take action on climate and biodiversity, comply with legislation, and meet the ever-changing standards for certification.

One of our focus areas is decarbonisation and the transition to a net zero economy, and we currently have half a million tonnes of carbon dioxide equivalent (CO_2e) emissions under our management. GGE measures clients' footprints annually as part of a robust strategy to reduce emissions from their baseline to their target net zero year.

I am pleased to present Go Green's 2024 emissions report, marking the beginning of a new chapter of growth for the organisation. With the addition of new colleagues and clients, we remain firmly committed to expanding our services while continuing to meet our emissions reduction targets.

Dominic Lavelle, CEO

Executive Summary

Go Green Experts has its own target to achieve net zero emissions across all scopes of greenhouse gas (GHG) emissions by 2040. In the interim, we aim to reduce scope 1 and scope 2 emissions by 50% by 2030, compared to our baseline emissions measured in 2022. We also aim to reduce our overall carbon footprint by 50% by this interim date through measurement and control of our scope 3 emissions.

These targets are consistent with a 1.5°C reduction pathway and are set per the Science-Based Targets Initiative (SBTi) guidance for SMEs. They have been set using the market-based methodology of electricity carbon accounting rather than the location-based methodology. Go Green Experts will report on both the market-based and location-based carbon footprint each year and aims to become net zero by 2040 under both measures.

During the 2024 reporting period, overall emissions remained largely static compared to the 2023 and baseline years, decreasing by just 20kg of carbon dioxide equivalent ($CO2_e$) emissions. However, this was despite an increase in both headcount and turnover which generated increases in direct operational emissions. Scope 3 emissions were calculated using more accurate, geographically specific factors for this report but still reduced by 3% despite higher factor values. As GGE continues to grow its team and client base we will place focus on maintaining our trajectory towards net zero by 2040, and involving both colleagues and clients in our strategy.

This report provides an update on Go Green Experts' journey to net zero.

1. Organisational Boundary

Carbon Footprint Boundary

Go Green Experts has adopted the operational control approach to emissions measurement – we record emissions from facilities, sites and processes over which we have operational control.

The boundary for the measurement of our carbon footprint has been set as the direct operations for Go Green Experts, shown in the diagram below with the specific categories that have been included and excluded.

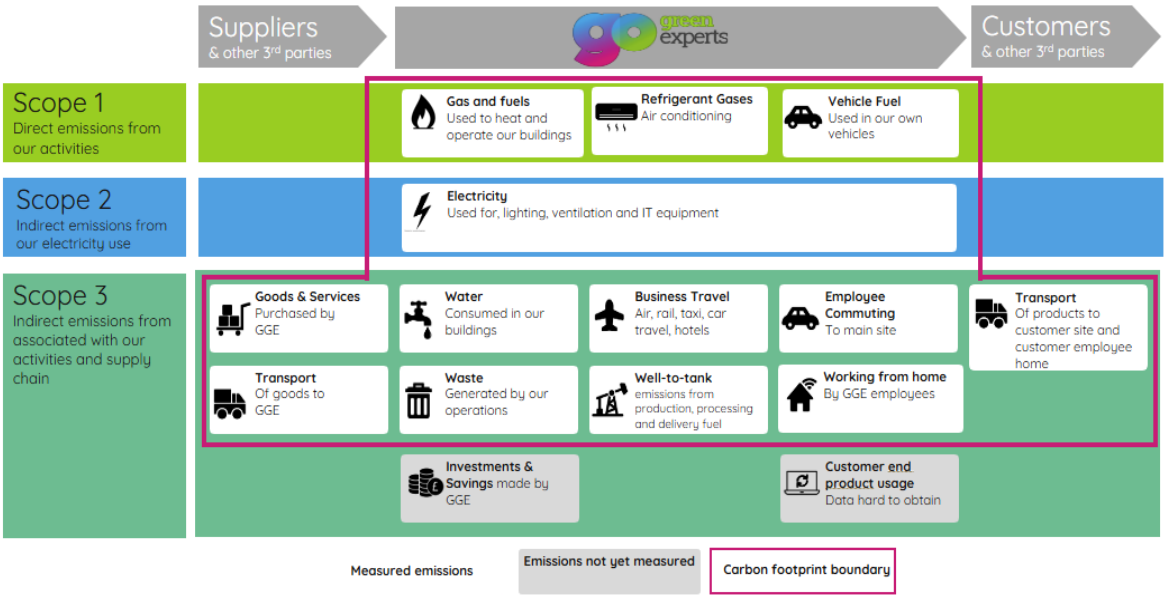

Figure 1.1: Go Green Experts - Organisational Boundary

Data Sets Analysed

Go Green Experts has reviewed the following data sets in order to calculate the in-scope operational emissions:

Business Activity	Data Source
Electricity, gas, fuel and water consumption	Utilities statements; information provided by landlords.
Refrigerant gas usage	Service reports from air conditioning contractors.
Business travel by air and land	Submitted expense claims and mileage records.
Employee commuting and homeworking	Mileage data for commuting, proportional energy bills from home working.
Purchased goods and services	Company accounts.

2. Emissions Summary

Calculations

The carbon emissions for each category of consumption were calculated using the methodology defined in the Greenhouse Gas Protocol and the carbon conversion factors published annually by Exiobase and DESNZ on behalf of the UK Government.

Emissions consist of several atmospheric greenhouse gases which include Carbon Dioxide (CO_2), Sulphur Hexafluoride (SF_6), Methane (CH_4), Nitrous Oxide (N_2O), Ozone (O_3), Hydrofluorocarbons (HFCs) and Perfluorocarbons (PFCs). For simplicity of comparison, the global warming potential (GWP) of all these gases is combined into a carbon dioxide equivalent (CO_2e). All 'carbon emissions' quoted in this report are in CO_2e units.

Type	Total Emissions (tCO_2e)
Scope 1	0.22
Scope 2	0.15
Scope 3	9.05

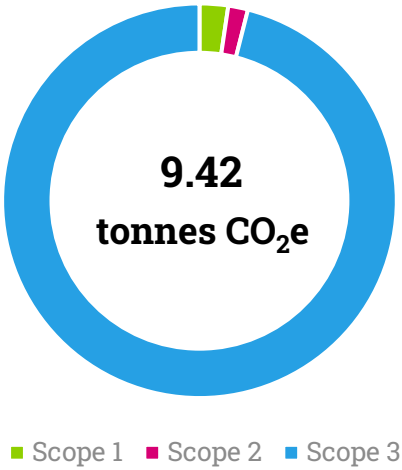

Figure 2.1: Emissions breakdown by scope (location-based)

3. Key emission reduction initiatives

Completed:

- ✓ Move offices.
- ✓ Purchase REGO certificates to move to 100% renewable electricity.
- ✓ Website hosted by low carbon provider.
- ✓ Engage largest suppliers to ascertain their net zero plans.
- ✓ Flight-free business travel policy.

Planned:

- ➢ Update sustainable travel policy to ensure all business travel is via cycle, train or EV.
- ➢ Encourage office building owner to switch to 100% renewable electricity tariff.
- ➢ Consider moving offices to a low carbon office solution, such as Passivhaus design.
- ➢ Keep up to date with the research project started in 2024 which uses district heat network from the River Severn, this may decarbonise heat in offices before 2030.
- ➢ Work with supply chain to reduce emissions and set up procurement policy to only work with low carbon suppliers by 2030.
- ➢ Ensure electric vehicles are charged with 100% renewable electricity.

4. 2024 Carbon Footprint

Footprint summary

For the period 1st January 2024 to 31st December 2024 the carbon footprint (scopes 1, 2 and 3) for Go Green Experts was calculated as below:

	tCO2e	% to total (market)	% to total (location)
Scope 1 - Direct Emissions from operations			
Gas consumption	0.22	2.4%	2.3%
Travel in owned vehicles	0.00	0.0%	0.0%
Fugitive gas (refrigerants)	0.00	0.0%	0.0%
Scope 2 - Indirect Emissions from electricity consumption			
Purchased Electricity - market based	0.00	0.0%	-
- location based	0.15	-	1.6%
Travel in electric vehicles	0.00	0.0%	0.0%
Scope 3 - Indirect Emissions in the value chain			
Purchased goods and services	7.48	80.7%	79.4%
Fuel- and energy-related activities	0.09	0.9%	0.9%
Water	0.00	0.0%	0.0%
Waste generated in operations	0.00	0.0%	0.0%
Business travel - grey fleet	0.11	1.2%	1.1%
Business travel - air & public transport	0.32	3.5%	3.4%
Employee commuting	0.82	8.8%	8.7%
Home working	0.23	2.4%	2.4%
Total GHG emissions - market based	**9.27**		
- location based	**9.42**		

Figure 3.1: Total footprint by scope category

Two figures are reported here, based on the “location-based” and “market-based” methodology for calculating electricity emissions.

The location-based method: a method to quantify GHG emissions from electricity based on the average energy generation emission factors for a specific geographical location. In this case, the calculation assumes that electricity emissions per kWh are the average for the UK national grid.

The market-based method: a method to quantify GHG emissions from electricity based on data supplied by the energy generators from which the company purchases electricity. This method shows the impact of renewable energy tariffs, which generate zero scope 2 emissions.

5. Commentary – Changes from last year and data assumptions

The total carbon footprint for Go Green Experts has decreased from 2022 to 2024 by 4.48 tonnes of CO_2e. Data quality comments and assumptions for each activity are outlined below:

Scope Category	Inclusion	Notes
Scope 1: Gas, fuels and refrigerants	Included	• Gas consumption has been taken from bills where employees are able to calculate the proportion of their home that is used for home working. Estimates have been used for the Worcester office based on square footage as a proportion of the building. • No air conditioning leaks were reported by the shared office management this year, leading to a decrease to zero in emissions for refrigerants.
Scope 2: Electricity	Included	• Electricity consumption has been taken from bills where employees are able to calculate the proportion of their home that is used for home working. Estimates have been used for the Worcester office based on square footage as a proportion of the building. • REGO certificates have been purchased to offset scope 2 emissions from all grid energy consumed.
Scope 3.1: Purchased goods & services	Included	• Emissions from purchases have increased year-on-year in line with increased turnover, as well as moving to more accurate emission factors. • Water consumption has been calculated where employees are able to provide proportional bill data and estimated for the Worcester office.
Scope 3.2: Capital goods	Excluded	• Out of scope: no material capital assets were purchased within the reporting period.
Scope 3.3: Fuel- and energy-related activities	Included	• This includes all the transmission & distribution and well to tank emissions from the scope 1 gas and scope 2 electricity calculations.
Scope 3.4: Upstream transportation & distribution	Excluded	• Out of scope: no goods are transported to the offices.
Scope 3.5: Waste	Included	• Waste data has been estimated based on industry average waste production by type, multiplied by FTE.
Scope 3.6: Business travel	Included	• Business related travel emissions have been calculated using mileage data as well as expense reports. Business journeys were reduced following the introduction of the sustainable travel policy, leading to a significant fall in emissions.
Scope 3.7: Commuting and working from home	Included	• Commuting emissions have been calculated using data on mileage and mode of transport for the two employees who regularly commute.

		• Home working emissions were only calculated for those employees unable to provide proportional scope 1 & 2 data. Calculations the DESNZ average factor. • There has been an in increase in both commuting and working from home emissions due to growing from 1 to 2.5 FTE in 2024 (new hires starting halfway through the year).
Scope 3.8: Upstream leased assets	Excluded	• All relevant emissions from leased assets are captured within scopes 1 and 2, or within scope 3.1 where individual data cannot be extracted from purchases.
Scope 3.9: Downstream transportation & distribution	Excluded	• Out of scope: no goods are transported from the business to customers.
Scope 3.10: Processing of sold products	Excluded	• Out of scope: no physical products are made by GGE.
Scope 3.11: Use of sold products	Excluded	• Out of scope: no physical products are made by GGE.
Scope 3.12: End-of-life treatment of sold products	Excluded	• Out of scope: no physical products are made by GGE.
Scope 3.13: Downstream leased assets	Excluded	• Out of scope: no leased assets where operated in the reporting year.
Scope 3.14: Franchises	Excluded	• Out of scope: GGE does not operate franchises, instead employing subcontractors to deliver the service.
Scope 3.15: Investments	Excluded	• Out of scope: no material investments were made during the reporting period.

6. Go Green Experts Carbon Reduction Target

Go Green Experts is committed to reaching net zero by 2040. In order to achieve this ambition, a mixture of measures is available to reduce our carbon emissions over time. This section aims to illustrate all targeted opportunities in the short, medium, and long-term. The options are presented using a hierarchy of consumption avoidance and usage optimisation, followed by decarbonising energy consumption by moving away from fossil fuels.

As the timing of the plan is starting from the recently baselined carbon footprint period, particular focus has been on the short-term initiatives which represent the 'low hanging fruit' for Go Green Experts.

In 2022 an interim target was set for a 48% reduction in scope 1 & 2 emissions by 2030 from the 2022 baseline. Go Green Experts commits to reduce scope 1 and scope 2 GHG emissions by this amount, with an ambition to also reduce scope 3 emissions by at least 49%.

The graph below shows the glide path from baseline to net zero emissions by 2040 and indicate how actual annual emissions compare to this plan.

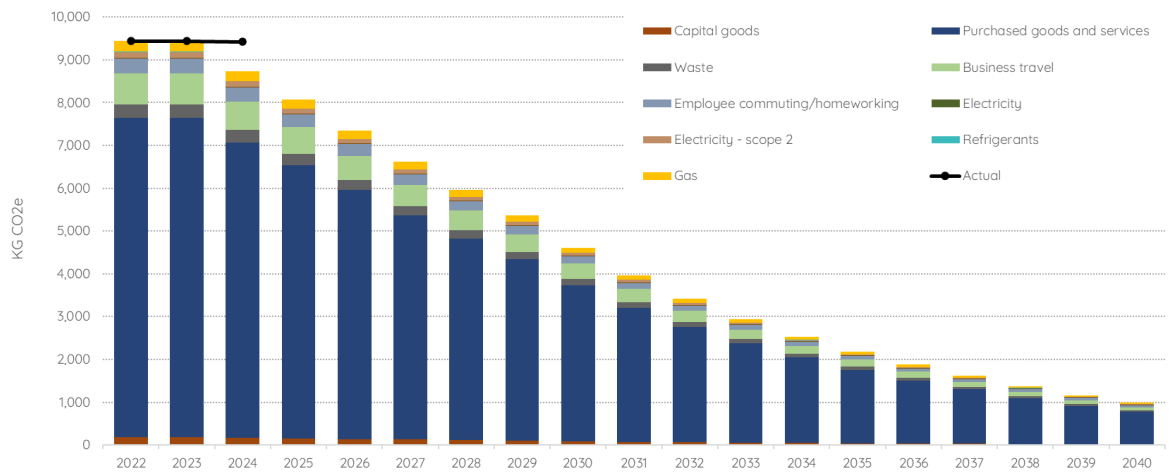

Table 6.1: Go Green Experts carbon reduction plan summary: 2022 to 2040

As part of the glide path to net zero, informed assumptions have been made on the wider UK economy decarbonisation milestones. For example, it is assumed that electricity will become increasingly renewable resulting in a lower greenhouse gas conversion factor. Further, over time, the usage of electric vehicles will increase dramatically, as will the usage of alternative, lower-carbon forms of transport – including cycling, trains, zero-emissions buses, and EV car share – facilitated by improvements in the UK's low-carbon transportation infrastructure and active travel commitment.

The supply chain, both nationally and internationally will also become less carbon-intensive over time, with more options for very low-carbon products and services, thus supporting a reduction in Go Green Experts' Scope 3 emissions.

CO2e Aspect	Opportunities	Baseline Emissions	Potential Carbon Savings in Year 1 (Kg CO2e)	Potential Carbon Savings by 2030 (Kg CO2e)	% of Total Footprint	Comment
Background UK Government Decarbonisation - Relevant Activity						
Electric Vehicles & associated EV infrastructure.	The UK Government has committed to new car sales to all be zero emission by 2035, and the associated required electric vehicle infrastructure will be in place by that date.	Background policy and infrastructure required to unlock the business travel and Commuting carbon savings below.				UK Government Policy - End the sales of new petrol and diesel vehicles by 2035. The UK Government also needs to deliver it's commitment to the rollout of electric vehicle charging infrastructure in the UK ahead of the above phase out date.
Electricity Grid	Estimated decarbonisation of UK electricity grid - supports office and travel savings.	6.60	5.81	3.22	0.034%	Estimate based on historic annual reduction in UK grid emissions from recent years. Dependent on continuation at current rate which is in line with government objectives.
Potential Actions						
Purchased Goods & Services	Work with suppliers to jointly reduce emissions.	180	170	92	1%	Carry out supplier survey and work influence carbon reduction.
On Site Fuel	Continue to improve operating methods to reduce fuel use. Use HVO fuel..	11	0	6	0%	Based on office efficiency improvements.
Electricity	Continue to reduce mileage and consider HVO	1	0	1	0%	Move to electric vehicles
Commuting	Encourage commuting behaviour and significant % electric vehicles.	342	337	175	2%	Assuming 100% switch to electric.
Waste	Review waste disposal and transport	1,356	0.0	694	7%	
Other Categories, Water Waste, Air Con etc.	Education and behaviour change	7,553	0	0	0%	
TOTAL		**9,442**	**507**	**967**	**10%**	

Figure 6.2: GGE carbon reduction plan with targeted actions

APPENDIX A: Report Methodology

This assessment of Greenhouse Gas (GHG) emissions is compliant with the Greenhouse Gas Protocol, a globally recognised standard jointly developed by the World Resources Institute and the World Business Council for Sustainable Development. The Greenhouse Gas Protocol provides comprehensive, standardised frameworks for quantifying and managing GHG emissions across private and public sector operations, value chains, and mitigation efforts.

Five key accounting principles are central to the Greenhouse Gas Protocol methodology:

Relevance	Ensure that the GHG data collection accurately records and presents all relevant emissions from the organisation.
Completeness	The calculation captures all emitted GHGs. If any emission sources are omitted, clear and detailed justifications are given.
Consistency	The calculations are based on uniform methods. Any changes in data sources, calculation boundaries, or emission factors are always reported.
Transparency	All collected data is clearly and coherently reported, preferably through an accurate audit scheme. All assumptions on methods, approximations and emission factors are well documented.
Accuracy	The quantification of GHG emissions is without systematic overestimation or underestimation, it is tried to reduce uncertainties as much as possible wherever possible.

Calculations

The emissions for each category of activity have been calculated in line with the methodology defined in the Greenhouse Gas Protocol and using emissions factors from various sources including Exiobase, the Office of National Statistics (ONS) and the UK Government's Department for Environment, Food, and Rural Affairs (DEFRA).

Following the guidelines of the Greenhouse Gas Protocol, the emissions inventory encompasses seven primary (groups of) GHGs: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulphur hexafluoride (SF_6), nitrogen trifluoride (NF_3), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). All of these gases are considered in-scope.

Additionally, emissions out-of-scope are also considered, this included carbon dioxide from biogenic origin ($bioCO_2$) and other greenhouse gases which are not included in the Kyoto Protocol but still have a well-established global warming effect.

Scope 1, 2 and 3 emissions

The Greenhouse Gas Protocol classifies emissions into 3 scopes and 21 categories:

Scope 1 Direct GHG emissions originate from sources owned or controlled by the organization.

Scope 2 Indirect GHG emissions result from purchased electricity and other energy carriers.

Scope 3 Other indirect GHG emissions beyond those covered by Scope 2 that happen elsewhere in the value chain, both upstream and downstream.

These scopes are further subdivided into distinct activity categories. Scope 1 encompassed 4 categories, Scope 2 encompasses 2 categories, and Scope 3 emissions are split into 15 categories, across upstream and downstream. See Figure 1 for a visual summary of this classification across the value chain.

APPENDIX B: Climate Change and Net Zero – Background

Since the Industrial Revolution, the average temperature of the planet has risen by around 1°C. This is a rapid change in terms of our global climate system, and the temperature rise is continuing. Governments and businesses globally are taking action to minimise this rise and minimise the most severe impacts of climate change.

The Paris Agreement of 2015 committed member countries to reduce their carbon output "as soon as possible" and to do their best to keep global warming "to well below 2°C".

Definition of Net Zero

Net zero means cutting greenhouse gas emissions to as close to zero as possible, with companies then obliged to ensure that any remaining emissions that cannot be avoided by the company activity are removed from the atmosphere, for example via Direct air Capture technology (DAC) – per SBTi guidance.

Science Based Targets

SBTi is a collaboration between the CDP (was Carbon Disclosure Project), the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF).

The SBTi's goal is to provide companies worldwide with the confidence that their climate targets are supporting the global economy to achieve net zero before 2050.

Individual Business Contributions

Whilst National and Local Governments are setting targets and policies, including legislation, individual businesses can contribute to the process. Thousands of businesses around the world of all types and sizes are committing to measure and reduce their emissions by:

- **Measuring**, understanding, and taking steps to reduce their own greenhouse gas emissions, (Carbon Footprint)
- **Reducing** emissions across all aspects of their operations, including energy use, transport and travel, supply chain, finance and waste
- **Influencing** stakeholders including suppliers, customers, staff, and the public to take steps to reduce emissions in parallel
- **Reporting** and publicising progress

Individual Business Benefits

By following this route, a company can benefit from:

- **Cost-saving**: - Where most carbon is emitted is almost certainly where spend is highest
- **Winning Business**: - More and more companies and government agencies are making sustainability a factor in requests for proposals
- **Funding and Investment**: - Banks and investors are increasingly treating organisations that have clear sustainability plans favourably, for example via offering improved lending rates for sustainability projects
- **Public Relations & Marketing**: - Publicising sustainability goals and reporting achievements
- **Social and Environmental**: - Helping to reduce society's carbon emissions and waste