

# Carbon Reduction Plan

**Supplier Name:** Andrew Scott Ltd

**Publication Date:** October 2024



## 1. Introduction

This is the Andrew Scott Ltd Carbon Reduction Plan, for the calendar year 2024, and has been produced in line with the GHG Protocol. This plan details our baseline and current organisational carbon footprint and sets out our commitment to Net Zero Carbon emissions by 2050. This plan, and its commitments will contribute to a Net Zero public sector in Wales by 2030 and Net Zero UK by 2050.

This Carbon Reduction Plan will be updated annually and is approved and endorsed by our Managing Director and Board of Directors. This plan is aligned to Andrew Scott Ltd's strategic business plans. As one of the largest Welsh Contractors, we are committed to the Sustainable Development of Wales, and our strategic business plans are also aligned to The Well-being of Future Generations (Wales) Act 2015, to ensure, as a responsible Welsh business, we are contributing to the long-term improvement of social, cultural, environmental, and economic well-being of people and communities in Wales.

## 2. Our Business

Established in 1870, Andrew Scott Ltd is one of the UK's oldest independent construction companies. We are a respected name in the civil engineering and construction markets to both Public and Private sector customers. For over 150-years we have successfully contributed to the built environment, delivering innovative, high-quality and sustainable projects. Our business model is based on regional and long-term employment, the use of local supply chains, investment in training and employment, direct delivery and the importance of the wellbeing of our staff and local communities. We operate our direct delivery approach with over 230 local staff and operatives and our in-house plant and transport fleet.

## 3. Our Commitment to Achieving Net Zero Carbon

Andrew Scott Ltd understands the importance of being accountable for how our business impacts our planet and the people around us, and therefore we are fully committed to becoming a Net Zero business and leaving a positive impact on our planet. We thrive to create a business environment that is driven by innovation, and we are passionate about reducing our carbon emissions, in order to help mitigate global climate change.

Since first establishing a carbon emissions footprint in 2013 in collaboration with The Carbon Trust, we have re-baselined to the financial year 2019-2020 due to enhanced data collection methodologies and accuracy. Our updated reporting methods cover all Scope 1 and Scope 2 carbon sources, as well as specific and relevant Scope 3 sources that we can report on with the highest level of confidence. Andrew Scott Ltd has set a main target to further improve the accuracy of our carbon reports by

reporting on all Scope 3 emissions by 2026. This will lead to additional carbon reductions, cost savings, and a more sustainable reputation for both, Andrew Scott Ltd and our project stakeholders.

To assist in achieving these goals, we have set science-based targets, approved by the Science Based Targets Initiative (SBTi), to:

- Reduce direct carbon emissions in Scopes 1 and 2 by 46% by 2030.
- Reach zero carbon emissions across all operations (Scope 1, 2, and 3) by 2050.



#### 4. Reporting Methodology

To produce an accurate and consistent carbon emissions footprint, we follow the UK Government Environmental Reporting Guidelines. All Scope 1, 2, and 3 data sources monitored by us are as described in the GHG Protocol Corporate Accounting and Reporting Standard. To convert units such as litres of fuel or kWh of electricity for example into carbon emissions, we use the GHG conversion factors from the UK Government GHG Conversion Factors for Company Reporting document provided by the Department for Energy Security & Net Zero/Department for Environment Food & Rural Affairs (DEFRA). All conversion factors used are obtained from the 'UK Government GHG Conversion Factors for Company Reporting' document specific to the relevant year.

Our reporting methodologies consists of both Tier 2 and 3 levels of accuracy as outlined in the [Public sector net zero reporting guide | GOV.WALES](#).

As part of our efforts to continually enhance the accuracy of our carbon emissions footprint data, we have made the decision to change our reporting methodology for site-based data. In previous years, data from our projects has been based on a 'Selected Site' system, which included data from projects that were completed during that financial year. For the 2023-2024 financial year we changed this system to record and report site-based data from all our projects that were active during the financial year. We will continue to use this new system for our future carbon emissions footprints.

## 5. Baseline Carbon Emissions Footprint

Andrew Scott Ltd has dedicated many efforts to the ways in which we measure and reduce carbon emissions. With the aid of The Carbon Trust, we first developed a carbon emissions footprint in 2013, but due to enhanced data collection methodologies and accuracy, we have recently assigned our new baseline to the financial year 2019-2020.

Our 2019-2020 baseline includes all Scope 1 and 2 emissions and various Scope 3 emissions. We calculated our total baseline carbon emissions footprint to be 2024.18 tCO<sub>2</sub>e. We use this baseline as a key marker to help outline our progress in reducing carbon emissions.

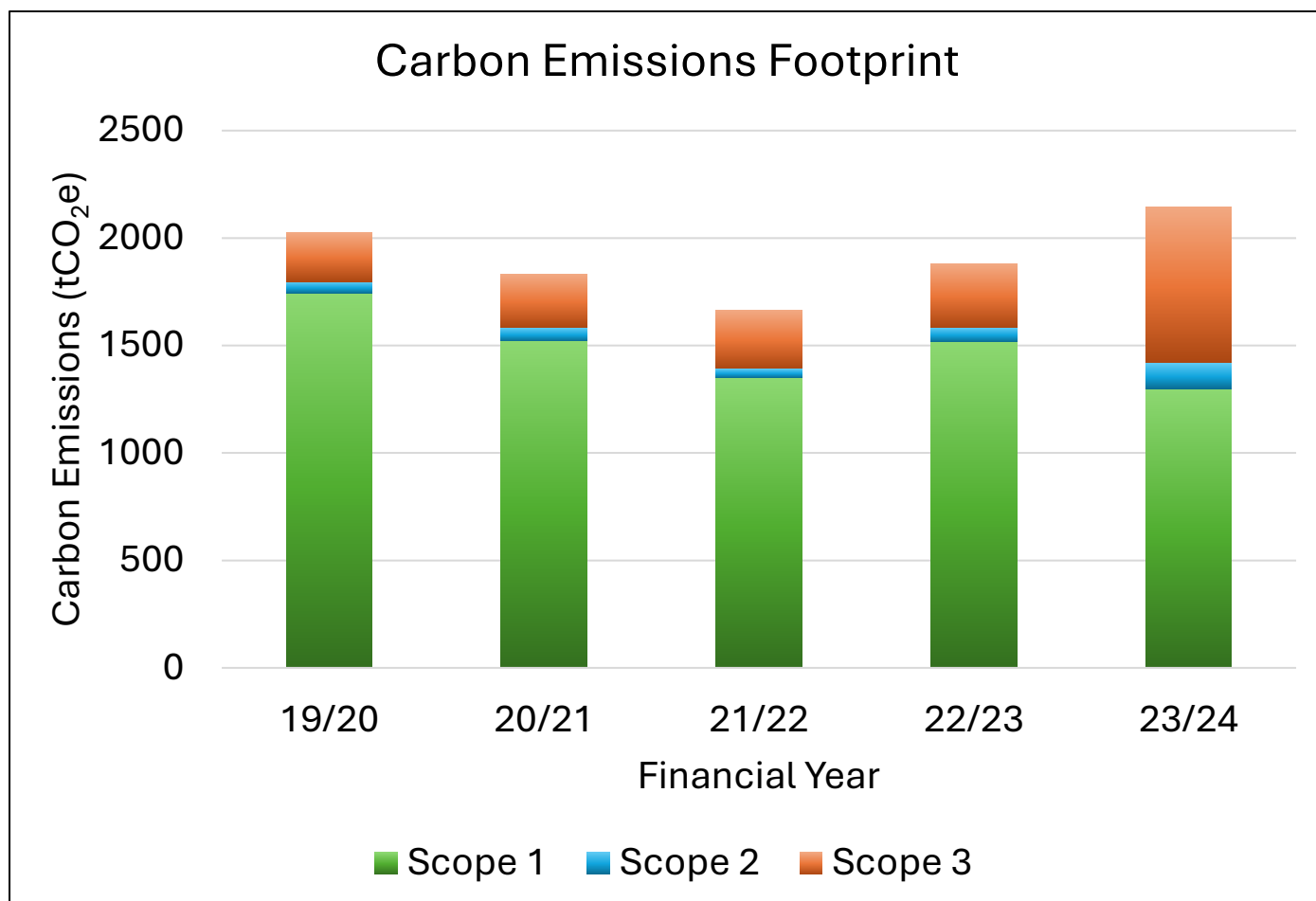
<b>BASELINE CARBON EMISSIONS FOOTPRINT</b>			
<b>Reporting Period: Financial year running 1<sup>st</sup> July 2019 – 30<sup>th</sup> June 2020</b>			
<b>Carbon Emissions</b>	<b>Source/Description</b>	<b>Total (tCO<sub>2</sub>e)</b>	<b>Percentage of Total Emissions</b>
<b>Scope 1</b>	Gas Oil – For use on plant and machinery owned by ASL	1743.63	86.14%
	Petrol & Diesel – Company cars and vans		
	Gas – Used at HQ (The Grange)		
<b>Scope 2</b>	Electricity – From HQ (The Grange), Plant Depot, and Selected Sites	54.55	2.69%
<b>Scope 3</b>	Transmission & Distribution Losses – Frome Scope 2 electricity consumption	226	11.17%
	Water supply at HQ (The Grange) and Selected Sites		
	Staff travel to work in employee-owned vehicles		
	Staff commuting to HQ (The Grange)		
<b>Total Carbon Emissions</b>		<b>2024.18</b>	

## 6. Current Carbon Emissions Footprint

Since establishing our baseline carbon emissions footprint in 2019, we have continued to implement new policies, procedures and innovations in order to reduce our carbon emissions and achieve our reduction goals.

Our current carbon emissions footprint was calculated to be 2146.13 tCO<sub>2</sub>e. Our carbon emissions footprint has increased by 6% (121.95 tCO<sub>2</sub>e) since our baseline year and by 14% (265.49 tCO<sub>2</sub>e) since our previous footprint (2022-2023). We have concluded these increases are due to our rise in revenue, as well as the inclusion of more Scope 3 carbon emissions to our footprint.

<b>CURRENT CARBON EMISSIONS FOOTPRINT</b>			
<b>Reporting Period: Financial year running 1<sup>st</sup> July 2023 – 30<sup>th</sup> June 2024</b>			
<b>Carbon Emissions</b>	<b>Source/Description</b>	<b>Total (tCO<sub>2</sub>e)</b>	<b>Percentage of Total Emissions</b>
<b>Scope 1</b>	<p>DERV - Mass fuel deliveries to sites for use on plant and machinery owned by ASL</p> <p>Passenger Vehicles - Company vans with trackers fitted and company cars supplying mileage</p> <p>Diesel &amp; Petrol - Fuel cards for company cars and vans</p> <p>Natural Gas - Gas bills from HQ (The Grange)</p>	1296.87	60.43%
<b>Scope 2</b>	Electricity – From HQ (The Grange & Scott House), Rutherglen Plant Depot, and Project Sites	122.71	5.72%
<b>Scope 3</b>	<p>Transmission &amp; Distribution Losses (From Scope 2 Electricity Consumption)</p> <p>Water Usage - HQ (The Gange &amp; Scott House) and Project Sites</p> <p>Water Treatment/Sewerage - HQ (The Gange &amp; Scott House)</p> <p>Staff Travel In Employee Owned Vehicles</p> <p>Staff Commuting In Employee Owned Vehicles - HQ (The Grange &amp; Scott House) &amp; Rutherglen Plant Depot</p> <p>Waste - HQ (The Grange &amp; Scott House), Rutherglen Plant Depot, and Project Sites</p> <p>Transport Of Waste Removal - HQ (The Grange &amp; Scott House), Rutherglen Plant Depot, &amp; Selected Sites</p>	726.56	33.85%
<b>Total Carbon Emissions</b>		<b>2146.13</b>	



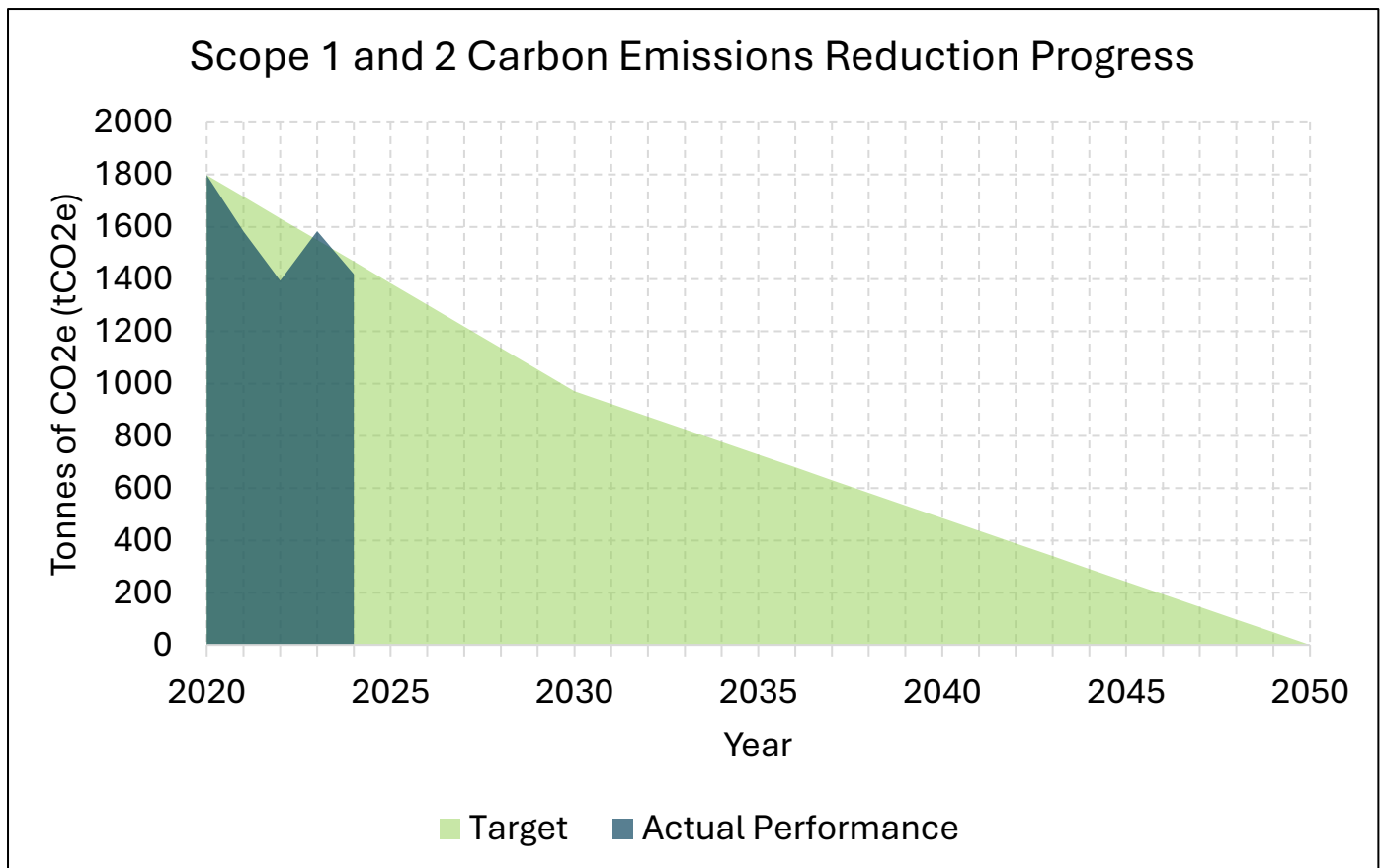
Financial Year	Turnover (£)	Carbon Emissions (tCO <sub>2</sub> e)	Carbon Emissions (tCO <sub>2</sub> e) per £1m Turnover
2019-2020	59,370,125	2024.18	34.09
2020-2021	54,628,258	1831.99	33.54
2021-2022	52,456,456	1664.59	31.73
2022-2023	72,974,836	1880.64	25.77
2023-2024	84,005,964	2146.13	25.55

## 7. Carbon Emission Reduction Targets

Andrew Scott Ltd is determined to continue its progress in reducing carbon emissions and achieving Net Zero Carbon.

By 2030 Andrew Scott Ltd is committed to reducing direct carbon emissions in Scopes 1 and 2 by 46%, and by 2050 reaching zero carbon emissions across all operations (Scope 1, 2 and 3).

To drive this target, we have also set carbon reduction targets approved by the Science Based Targets Initiative (SBTi), which is aligned to the Paris Climate Agreement. The SBTi is a collaboration between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wildlife Fund for nature (WWF). SBTi are business goals to stay within the 2°C temperature rise and are the scientific framework for the transition to a low-carbon economy.



## 8. Carbon Reduction Initiatives

### Completed Carbon Reduction Initiatives

#### Carbon Management Systems

- ISO 14001:2015 accredited Environmental Management System
- Carbon Footprint Assessment carried out by The Carbon Trust
- Internal Carbon Working Group
- Growth of ESG Team
- Establish targets with the Science Based Targets Initiative (SBTi)

#### Construction Projects

- Roll out of GAIA AutoMate software to reduce energy consumption by 50%, using sensors and actuators
- All site staff to receive suitable environmental training, for example, SEATS and SmartWaste training
- Incorporation of a Site Waste Management Plan (SWMP)
- Use of the most economically and environmentally viable products and materials using the Green Guide
- The use of energy efficient 'ECO-Cabins' on site
- Grid connection established on site when possible
- The installation of web cameras on site
- Develop a Construction Phase Green Travel Plan
- Water saving techniques on site, e.g. low flush WCs, low flow taps etc
- Employ ecological and environmental consultants to maintain the site Ecological Assessment
- The use of SmartWaste on all projects over £1m
- 96.17% of waste diverted from landfill on all projects (2023-2024 financial year)

### **Energy Efficiency and Procurement**

- Double glazing windows installed at HQ (The Grange)
- Installation of LED lighting at HQ (The Grange)
- Changed to a renewable energy supplier at HQ (The Grange)
- New offices retrofitted with energy efficient products to help achieve our 2030 targets – We have eliminated the use of natural gas at our HQ
- Banning of single use plastics companywide

### **Transport**

- Installation of electric vehicle charging points at HQ (The Grange and Scott House)
- Flexible working arrangements with staff – Increased working from home
- Trackers and speed limiters on company vans
- The procurement and use of hybrid/electric company cars
- Relocation and refurbishment of a new HQ that reduces staff mileage to and from work by around 30,000 miles per year
- Implementation of a Green Travel Plan including a cycle to work scheme and care sharing incentives
- Facial recognition at HQ to more accurately collect Scope 3 data

## Carbon Reduction – Project Examples

### 1. Low Carbon Office, Cross Hands, Carmarthenshire



Alternative Construction Approach	Sustainability Benefit
Off-site manufacture and coordination of SFS, roof ply-boards and cladding.	Improved quality and quicker erection resulting in little or no waste cutting on site, therefore less embodied carbon.
Reduction of internal concrete block walls by 2.1 m.	Reduced concrete use and resulted in a carbon reduction of 37.7 tCO <sub>2</sub> e.
Replacing underfloor heating specification with electric radiant panels.	Reducing concrete slab thickness, reduction in 461 tonnes of concrete, carbon reduction: 60.73 tCO <sub>2</sub> e. It also reduced the programme by 4 weeks and will reduce operational energy consumption/costs.
4,020 tonnes of excavated material, 100% recycled/reused, 1,630 tonnes re-used on site.	Supported circular economy, reduced materials, waste and embodied carbon by 31 tCO <sub>2</sub> e.
22,650 tonnes of site excavated subsoil re-used on site for crusher run and pipe bedding.	Supported circular economy, reduced materials, waste and embodied carbon by 22.31 tCO <sub>2</sub> e.
Installation of smart meters in each office and hybrid unit.	This allows for accurate monitoring of operational data to compare with estimates and targets.

## 2. Ysgol Gyfun Ystalyfera (New Build School)



On this project, we conducted an As-built Whole Life Carbon Assessment in partnership with Sustainable Construction Services (SCS). The outcome of this assessment showed we achieved an embodied carbon (A1-5) value of 797 kgCO<sub>2</sub>e/m<sup>2</sup>, which is below the current Welsh Government target for 2022-2024 (below 800 kgCO<sub>2</sub>e/m<sup>2</sup>).

## 3. New R&D Facility, Newport



During this project, we implemented a PPE Recycling Initiative to promote the Circular Economy. A total of 174 kg of textiles were diverted from landfill, contributing to our targets to divert at least 94% of waste from landfill.

#### 4. Watton Mount, Brecon (Heritage Project)



During the construction of this project, we installed 800 m<sup>2</sup> (50 mm thickness) of Truewool®'s Sheep's Wool Insulation. Below is a calculated comparison of the embodied carbon of Sheep's Wool Insulation compared with less sustainable alternatives such as Expanded Polystyrene (EPS) Insulation and Mineral Wool Insulation:

**Global Warming Potential:** Sheep's Wool Insulation = 0 kgCO<sub>2</sub>e/m<sup>3</sup>. Comparison 1- Expanded Polystyrene (EPS) Insulation = 82 kgCO<sub>2</sub>e/m<sup>3</sup>. Comparison 2- Mineral Wool Insulation = 44 kgCO<sub>2</sub>e/m<sup>3</sup>.

**Total Carbon Emissions:** Sheep's Wool Insulation = 0 kgCO<sub>2</sub>e. Comparison 1- Expanded Polystyrene (EPS) Insulation = 3280 kgCO<sub>2</sub>e. Comparison 2- Mineral Wool Insulation = 1760 kgCO<sub>2</sub>e.

#### Future Carbon Reduction Initiatives

- 100% electric/hybrid company cars in the next 3 years
- Trial electric plant
- Reporting on all Scope 3 emissions by 2026
- Improving the accuracy of all data capture methodologies
- Use more environmentally sustainable construction processes and materials, for example, low carbon concrete and timber frames etc

- Increase the use of renewable energy sources at all our locations
- Green bonuses for choosing more fuel-efficient vehicles
- Ongoing research of electric, biofuel, and hydrogen plant options, as well as alternatives, to tackle the emissions of our directly owned construction plant and equipment
- PV panels installed at HQ, Plant Depot, and on site
- Work to further optimise the waste hierarchy to increase waste prevention

## 9. Declaration & Sign-Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standards for Carbon Reduction Plans.

We have followed the UK Government Environmental Reporting Guidelines (March 2019). We have categorised our GHG emissions as Scope 1, 2 and 3 as described in the GHG Protocol Corporate Accounting and Reporting Standard. Emissions have been calculated as tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) for Scope 1, 2 and selected Scope 3 sources using conversion factors listed in the relevant Department for Environment Food & Rural Affairs (DEFRA) / Department for Business, Energy & Industrial Strategy Greenhouse Gas Conversion Factors for Company Reporting for the relevant financial year. We are not yet able to report on all Scope 3 emissions but are in the process of putting in place procedures and plans to capture more information on relevant emission categories in order to complete a full carbon emissions footprint.

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

**Signed on behalf of the supplier:**



**Mark Bowen**  
Managing Director  
Andrew Scott Ltd  
October 2024