BSG Civil Engineering Ltd

20 Tobermore Rd, Maghera BT46 5DA

Streamlined Energy & Carbon Report, PPN 06/21 Carbon Reduction Plan for calendar year 2025.

June 2026

Contents

Declaration 4
1.0 Introduction 5
2.0 Methodology 6
3.0 Measurement and Recording Total GHG Emissions 6
3.1 Scope 1: Direct GHG emissions 6
3.2 Scope 2: Electricity indirect GHG emissions 8
3.3 Scope 3: Other indirect GHG emissions 9
3.4 Scope 1, 2 & 3 Recommendations 11
3.5 Celebrating Organisational Successes 11
4.0 Conclusion 13
5.0 Appendix 1 – PPN 06/21 Carbon Reduction Plan 15
Notes for Completion 15
Commitment to achieving Net Zero 16
Baseline Emissions Footprint 16
Emissions reduction targets 18
Carbon Reduction Projects 19
Completed Carbon Reduction Initiatives 19
Future Carbon Reduction Initiatives 19
Other Considerations 20
Declaration and Sign Off 20

Executive Summary

BSG Civil Engineering Ltd (BSG) are continuing to report their organisational GHG emissions in the 2025 calendar year. This has been carried out using the Streamlined Energy & Carbon Reporting (SECR) framework for UK business. The methodology is consistent with reporting in Baseline year (2021) and subsequent reporting years. BSG the "In-Scope" organisation have developed a Carbon Reduction Plan (included in Appendix A), which details their organisational carbon footprint and confirms their commitment to achieving Net Zero by 2050.

SECR requires unquoted large companies such as BSG to report, as a minimum, UK energy use from electricity, gas and transport fuel – as well as the associated GHG emissions which should include at least one intensity metric. BSG have also measured and reported on a subset of their scope 3 emissions which goes beyond the SECR requirements. It is however a requirement of Procurement Policy Note – Taking Account of Carbon Reduction Plans in the procurement of major government contracts (PPN 06/21: Carbon Reduction Plan).

The measurement and reporting of GHG emissions are reported in accordance with the published reporting standard for SECR, Carbon Reduction Plans and the GHG Reporting Protocol corporate standard. The report adopts UK government emission conversion factors for GHG company reporting. Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements. The required 5 subsets of Scope 3 emissions have been reported in accordance with the UK Governments reporting standard for Carbon Reduction Plans and the GHG Protocol Corporate Value Chain (Scope 3) Standard.

This report measured and recorded on the GHG emissions from operations over which BSG has both financial and operational control and were aligned with the financial statement for the period 1st January 2025 to 31st December 2025. Total GHG emissions from Scope 1, Scope 2 and the mandated categories of Scope 3 are calculated to be 1257tCO2e. The breakdown of the company GHG emissions are set out below.

	2025 Total (tCO2e)	**% change (2024)**
2025 Scope 1 Emissions	429	-8%
2025 Scope 2 Emissions	18	+58%
2025 Scope 3 Emissions	810	+18%
2025 Total GHG Emissions	**1257**	+8%

Table 1: 2025 Total GHG emissions from Scope 1, Scope 2 and Scope 3 activity, with associated percentage change from 2024.

BSG have increased their emissions in 2025 from 2024 by around 8%. However, the 2025 emissions are approximately 17% lower than the base year so progress is notable over time. A year-on-year reduction in emissions was recorded in Scope 1. This was driven by both a reduction in diesel consumption at sites, and the relocation of the new energy efficient headquarters. However, this resulted in the increased use of grid electricity. For example, two large sites having a temporary electricity supply, without which operations would require heavy generators. This is a positive change to operational processes, which also reduced noise and air pollution. Emission increases were most obvious across Scopes 2 & 3. This is due to increasing output and changing workflow patterns. The implementation phase of a project is likely to result in much higher GHG emissions than that of design stage, for example. Geographic location of BSG sites are also a contributing factor to increased emissions. Supplier transport and delivery continues to contribute the greatest emissions within the organisation.

Declaration

The Streamlined Energy & Carbon Reporting (SECR) report herewith has been prepared in conjunction with the Greenhouse Gas Protocol that provides standards and guidance as a foundation to measure and manage climate-warming emissions. The associated Carbon Reduction Plan has been completed in accordance with PPN 06/21 and UK government guidance on reporting standards for Carbon Reduction Plans.

Greenhouse Gas (GHG) emissions have been reported and recorded in accordance with the published reporting standard for SECR, Carbon Reduction Plans and the GHG Reporting Protocol corporate standard. The report adopts UK government emission conversion factors for GHG company reporting. Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required 5 subsets of Scope 3 emissions have been reported in accordance with the UK Governments reporting standard for Carbon Reduction Plans and the GHG Protocol Corporate Value Chain (Scope 3) Standard.

This SECR report and Carbon Reduction Plan have been reviewed and approved by the BSG Board of Directors.

Signed for and on behalf of BSG:

Name: Anthony Tohill

Role: Chief Executive Officer

Signature:…….…… Date: 26th June 2026

1.0 Introduction

This is the fourth year of company reporting, following the base year calculations in 2021. A full and complete breakdown of the rational and methodology is presented in the base year calculations, and all annual calculation should be read in accordance with it. Hence, the calculation of the BSG 2025 emissions is based on an exact replication of the methodology deployed in the base year. Adjustments to the methodology, are likely to be minimal and will be highlighted in each section, if applicable. These adjustments are a process of ongoing improvement in collecting and analysing the available primary data. A revised Carbon Reduction Plan is contained within the appendices of this report.

BSG recognise the importance of sustainable business practices and the effective management of CO2 emissions to the long-term success of the company but also the people they employ, the communities they deliver projects and the environment we all share. BSG remain committed to achieving Net Zero by 2050, which is the legally binding commitment of the UK government[1].

[1] HM Government (2021) Net Zero Strategy: Build Back Greener.

2.0 Methodology

In the absence of a prescribed methodology, the measurement and reporting of GHG emissions, have been completed in accordance with the published reporting standard for Streamlined Energy and Carbon Reporting (SECR), Carbon Reduction Plans (CRP) and the GHG Reporting Protocol corporate standard. The calculation of the BSG 2025 emissions was based on a replication of the methodology deployed in the Base year (2021).

3.0 Measurement and Recording Total GHG Emissions

This section of the report will identify, measure and record BSG's emissions from the six main greenhouse gases: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF6). CO2 is the main cause of the anthropogenic greenhouse effect and is the GHG that contributes to BSG's total emissions generated from the burning of fossil fuels to advance workplace activity. This includes direct and indirect emissions from energy consumption, industrial activity, built assets, and transportation.

The measurement contained in this report will be based on reliable data, provided by BSG for the calendar year beginning 1st January 2025 to 31st December 2025. The unit for measurement used in carbon accounting is a tonne of CO2-equivalent (CO2e), using the appropriate conversion factors published by the Department for Business, Energy & Industrial Strategy (BEIS). CO2e is the universal unit of measurement to indicate the global warming potential (GWP) of GHGs, expressed in terms of the GWP of one unit of carbon dioxide. Below is the formula provided by BEIS for calculating GHG emissions for a particular activity.

GHG emissions = activity data x emission conversion factor

3.1 Scope 1: Direct GHG emissions

Scope 1 includes the direct GHG emissions occur from energy sources that are owned or controlled by the company. BSG's direct emissions for measurement and reporting in Scope 1, includes BSG owned delivery vehicles[2] and fuel consumption from the company offices based in Maghera and temporary site offices. The diesel activity data was recorded in litres and converted directly to CO2 equivalent using the relevant BEIS 2025 conversion factor. A two-step calculation was deployed for the calculation of the delivery vehicle emissions. The data collected using vehicle mileage was converted to kilowatt hours (kWh) using the BEIS 2025 data for SECR passenger and delivery vehicles before then multiplied by the relevant diesel emission conversion factor. Total Scope 1, direct GHG emissions occur from energy sources that are owned or controlled by BSG is recorded as being emissions from burning oil as a fuel source across multiple fixed offices and temporary site accommodation, as well as using diesel as a fuel source within the company vehicles are presented in table 2.

[2] Refers to travel in vans and heavy goods vehicles that are owned or controlled by BSG. The term 'delivery vehicles' will be replaced with 'vehicles' here forward.

Scope 1	2025 (Activity Data)	Description	2025 Conversion Factors	Total (kgCO2e)	Total (tCO2e)
Fuels	0	Gas Oil (HQ)	2.54016	0	0
	0	Petrol (Sites)	2.33984	0	0
	86,864.00	Diesel (Sites)	2.66	231192.88	231.19
			Total	231192.88	231.19
Scope 1	**2025 (Activity Data)**	**Description**	**2025 Conversion Factors**	**Total (kgCO2e)**	**Total (tCO2e)**
Delivery Vehicles					
Step 1: Convert miles to KWh	615638	Class II (1.305 to 1.74 tonnes)	1.19939		
Step 2: Convert KWh to kgCO2e	738390.0608	Diesel (100% mineral diesel)	0.26808	197947.61	197.95
			Total	429140.49	429.14

Table 2: Summary of total annual fuel source data, combusted at a site or in an asset owned or controlled by the reporting organisation and total Scope 1 GHG emissions

Following the application of the relevant 2025 UK government emission conversion factors for GHG company reporting the total GHG emissions from the burning of fuel combusted at a site or in an asset owned or controlled by BSG is **429,140kgCO2e or 429tCO2e.**

BSG recorded zero gas oil at the organisations head offices and temporary site offices, in the reporting year. BSG no longer occupy the older, inefficient offices at Bank Square, Maghera. Consumption of diesel on sites has also decreased from the previous year but continues to contribute considerably to total emissions. Similarly, diesel fuel consumption has decreased within the year, but work remains to decarbonise the fleet. In 2025 there were a total of 37nr vehicles included in the calculation, which was an increase in 9No from 2024 reporting, including one electric vehicle (EV).

3.2 Scope 2: Electricity indirect GHG emissions

Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company in know locations. Purchased electricity is defined as electricity that is purchased or otherwise brought into the organisational boundary of the company. The Scope 2 Guidance and corporate GHG accounting framework is based on attributional accounting, which in this context means allocating electricity emissions to end-users. This is not extended to include the "impact" of a given action or activity outside of the inventory boundary. Scope 2 emissions physically occur at the facility where electricity is generated.

BSG's Scope 2 measurement will involve emissions generated from electricity consumption at the permanent head offices located in Maghera, as well as the temporary site accommodation. Total Scope 2, GHG emissions from the generation of purchased electricity consumed by BSG is recorded as being emissions from the use of electricity as a fuel source across multiple fixed offices and temporary site accommodation. The total Scope 2 Greenhouse Gas emissions are presented below.

	2025 (Activity Data - Kwh)	2025 Conversion Factors	Total (kgCO2e)	Total (tCO2e)
Electricity (Sites & HQ)	102,839.00	0.177	18202.50	18.20
		Total	18202.50	18.20

Table 3: Total annual electricity consumption Kwh and Scope 2 GHG emissions for company facilities at the named locations.

Total Scope 2, GHG emissions from the generation of purchased electricity consumed by BSG at named locations is **18,203kgCO2e or 18.20tCO2e.**

BSG has seen a small increase in the use of grid electricity, despite generating renewable electricity from the HQ solar panels. Two large sites with temporary electricity supply has contributed, without which operations would require heavy generators. This highlights the ongoing efforts that include fuel switching on site. Grid electricity is almost 40% generated by renewable energy as stated by the BSG electricity provider. This is a positive change to operational processes, which also reduced noise and air pollution which is of great importance to BSG in their public facing role within critical infrastructure installations.

BSG continue to generate electricity using renewable energy producing technologies, across the BSG temporary site accommodation and in the new company headquarters. In this reporting year, the new office installation generated 12kWp that would otherwise be taken from the grid. This installation also helped power 12,000miles of road miles using the company EV, which is charged on the premises. The head office BMS system identified that the PV installation helps reduce running costs by around 30% in the winter months although BSG suggest that there is further optimisation required to the BMS which more improve overall efficiency.

Continued professional development and staff training has improved the energy efficient practices both on site and within offices, which forms part of the company's overall sustainability strategy.

3.3 Scope 3: Other indirect GHG emissions

To fully understanding BSG's GHG emissions they need to collect and analyse data across other aspects of the business. Scope 3 requires companies to account for GHG emissions along their value chain. The GHG Protocol have produced a Corporate Value Chain Accounting and Reporting Standard[3] which provides requirements and guidance for companies in managing that specific risk.

Scope 3 emissions are often a consequence of the activities of the company but occur from sources not owned or controlled by the company. This may well drive gaps in the data, for example from BSG tier one suppliers. Some data will therefore be based on estimations using best practices that are robust and verifiably. Scope 3 in SECR is an optional reporting category that allows for the treatment of all other indirect emissions. However, following the guidance set out in the Carbon Reduction Plan guidance, BSG Scope 3 activities heave been determined to include:

- Upstream transportation and distribution (purchased goods and services),
- Waste generated in operations (waste removal from BSG offices and sites),
- Business travel (flights, land-based travel attributed to mileage from employee-owned cars, overnight accommodation),
- Employee commuting,
- Mains water supply and wastewater treatment to Maghera offices.

Process improvement to collect the data from upstream supplier transportation and distribution has resulted in more efficient means of data collection without impairing the methodology for reporting. That said, the reporting of upstream transportation and distribution (purchased goods and services), which are outside the control or influence of BSG remain challenging, but necessary. BSG have conducted a survey questionnaire with their supply chain, and it has revealed that most of the value chain are not reporting on GHG Emissions. BSG will be monitoring GHG emission reporting (or lack thereof), in the value chain and it may influence BSG decision around appointment of suppliers and sub-contractors.

The spend-based method which was included in the previous years has been deployed again. In the absence of a UK emission conversion factor for a spending-based model, a further calculation will need to be implemented which involves dividing the total fuel spend by the average cost per litre. This will produce the estimated litres of diesel used in the transport and distribution of supply chain goods. The total amount in litres will then be used as the activity data which will be multiplied the relevant UK emission factor for diesel. This method for calculating GHG emissions for road freight is used in the absence of fuel usage data contained within the UK guidance on measuring and reporting Greenhouse Gas (GHG) emissions from freight transport operations[4]. The two-step calculation is as follows:

Step 1: Activity Data (Fuel use per ltr) = Fuel spend ÷ fuel price

Step 2: GHG emissions = activity data x emission conversion factor

[3] GHG Protocol Corporate Value Chain Accounting and Reporting Standard: Supplement to the GHG Protocol Corporate Accounting and Reporting Standard.

[4] This method relates to the majority of GHG emissions from freight transport come from fuel burned in the vehicles themselves and not additional emissions coming from other elements, such as tier 1 supplier warehousing and offices.

Presented below in table 4, are the Scope 3 GHG emissions using primary data that was available to the author and lead assessor.

	2025 (Activity Data)	2025 KWh Conversion Factors	2025 (Activity Data - Kwh)	2025 kgCO2e Conversion Factors	Total (kgCO2e)	Total (tCO2e)
Business Flights	0			0.22928	0	0
Business Travel (Land - Average Car)						
Diesel	328,341	1.07644	353,439	0.27849	98429.33	98.43
Petrol	42,443	1.13256	48,069	0.26187	12587.89	12.59
Step 1: Convert miles to KWh						
Step 2: Convert KWh to kgCO2e						
Home Working						
Office Equipment	8,874			0.03168	281.13	0.28
Heating	7,837			0.30907	2422.18	2.42
Homeworking (office equipment + heating)	7,837			0.34075	2670.46	2.67
Hotel Stays						
Dublin / Belfast (London Conversion Factor)	300			11.5	3450	3.45
Transmission & Distribution	84120			0.01853	1558.74	1.56
Water Supply	217			0.1913	41.51	0.04
Water Treatment	0			0.17088	0	0
Waste Disposal						
Open Loop - Average Construction	2116.24398			1.00835	2133.91	2.13
HQ Landfill - Commercial and industrial waste	0			520.5327	0	0
Supplier T&D	257,879.86			2.66155	686,360.14	686.36

Total	809935.31	809.94

Table 4: Total GHG emissions from Scope 3 activity.

Total GHG Scope 3 emissions from upstream transportation and distribution of purchased goods and services, waste generated in operations, mains water supply and wastewater treatment, business travel from employee-owned cars and overnight accommodation, as well as employee commuting and home working are calculated to be **809,935kgCO2e or 810tCO2e.**

A slight GHG emission increase was recorded in employee land-based travel. This activity is unpredictable at times, due to project phasing and geographical distribution of projects, where

travel is unavoidable. Waste disposal has remained low withing the year, which is likely evidence of the work BSG has undertaken to provide educational training and heightened awareness of sustainable practices between employees and subcontractors.

Supplier T&D has increased significantly, again likely attributable to the timing and project phasing of some larger BSG projects. But also, due to growing the business pipeline of projects. Further work needs to be completed within the area of supplier T&D to advance the ambitions to NetZero. BSG should continue to monitor the GHG emission measurement and reporting within the value chain and put in place robust governance procedures around the appointment of suppliers and sub-contractors.

3.4 Scope 1, 2 & 3 Recommendations

Recommendations remain largely unchanged from those identified in the base year report[5] as no reportable area has achieved NetZero. Office based recommendations will be rolled off as they are no longer applicable to the new head office. The largest body of work remains within Scope 3, which is mostly attributable to other organisations transport and distribution activity. Recommendations include:

- Improve data collection processes to avoid double counting of Scope 3 emissions.
- Investigate the creation of a supplier carbon data repository to ensure that BSG are not double counting GHG emissions.
- Continue to work with supply chain to nudge them towards taking climate action to reduce Scope 3 emissions.
- Develop a protocol for managing supplier carbon and environmental performance. This should include a proportionate approach to achieve a balance between supplier size and scope, as well as contract value and the cost of applying additional measures.
- Continue to deliver workforce initiatives aligned with company vision for net zero 2025.
- Accelerate over time the deployment of plug-in vehicles, to replace older diesel vehicles.

BSG should also consider in the future further recommendations that are consistent with CCC "*Stretch Ambition*" and "*Speculative Options*" pathways to net zero by 2050, such as:

- Afforestation initiatives that align with NI Executives plan to reach 3,100h by 2035 & 4,100h from 2039 until 2050.
- Engineered carbon removals and carbon sequestering initiatives.
- Purchased carbon credit removals from elsewhere.

3.5 Celebrating Organisational Successes

The 2025 reporting year was the first full year of occupation within the new A rated office, incorporating heat pump, PV electrical generation and EV charging.

[5] Progress was made on trialling fuel switching on site-based activity but has not been rolled out wholesale, yet. Employee training and knowledge transfer is occurring within BSG on sustainability practices and will continue.

BSG joined the Business in Community and participated in the annual Environmental Benchmarking survey, achieving Gold Level Achievement

BSG were awarded an individual award for Top Performing New Applicant for Business in Community.

Noteworthy also is a small innovation project where we are currently designing and building our own Battery Backup Site Generators (BBSGs) to support our mobile site teams where local power isn't available to negate the need for the use of heavy diesel-powered generators. There are several benefits including silent, emission-free, and low-maintenance energy storage solutions that can support pumping stations, treatment facilities, telemetry/SCADA systems, and other mission-critical assets during outages or grid instability.

BSG are the lead delivery partner for NI Water for the following Peace Plus Project which will adopt innovative and sustainable treatment technologies at key sites in Ireland and Northern Ireland. The programme is managed by the Special EU Programmes Body (SEUPB), and BSG are working collaboratively with NI Water and Uisce Éireann to improve water quality in Lough Erne, Lough Melvin, and Donegal Bay. These projects aim to enhance wastewater discharges and help improve water quality in these shared waterbodies. Soe of the benefits to the environment, client, and communities include:

- More simple construction
- Shorter construction programme
- Lower construction cost
- Very low energy consumption
- Simple operation requiring reduced operator intervention and expertise
- Highly robust due to longer retention times and reduced need for emergency callouts making them more suitable for remote rural sites
- No noise or odour nuisance
- No routine sludge removal
- Greater flexibility to automatically handle extreme variations in flow
- No added chemicals that can end up in the receiving waters
- Excellent landscape integration
- Provides natural wildlife habitats

This is a significant project and BSG are proud to be involved with as well as being at the forefront of the design of these sustainable processes. BSG recognise that the importance of sustainable business practices and the effective management of CO2 emissions to the long-term success of the company but also the people they employ, the communities they deliver projects and the environment we all share. BSG remain committed to achieving Net Zero by 2050.

4.0 Conclusion

BSG have, to date measured and reported on their total GHG emissions for their base year, which was determined to be the calendar year of 2021 and subsequent years. Total GHG emissions from Scope 1, Scope 2 and the mandated categories of Scope 3, in this reporting year (2024) are calculated to be **1257tCO2e**, which is an increase on 2024 but still represents a substantial reduction on the base year. The results are presented in table 5 below.

	Total (kgCO2e)	Total (tCO2e)
2025 Scope 1 Emissions	429140.49	429.14
2025 Scope 2 Emissions	18202.50	18.20
2025 Scope 3 Emissions	809935.31	809.94
2025 Total GHG Emissions	**1257278.30**	**1257.28**

Table 5: Total GHG emissions from Scope 1, Scope 2 and Scope 3 activity in the 2025 calendar year.

BSG have made substantial progress from their initial GHG emission measurement and reporting, yet challenges persist. GHG emissions have increased on the previous year, with the biggest increase from Scope 3. In the 2025 calendar year emissions were overwhelmingly within the value chains transport and distribution of goods and materials to BSG sites. Similar to previous years, around 65% of the total GHG emissions are within Scope 3, and largely outside the direct control of BSG. Scope's 1 & 3 should be prioritised in the short, medium and longer term. The results for 2025 have also been presented in the figure below, to provide a visual representation of the emissions.

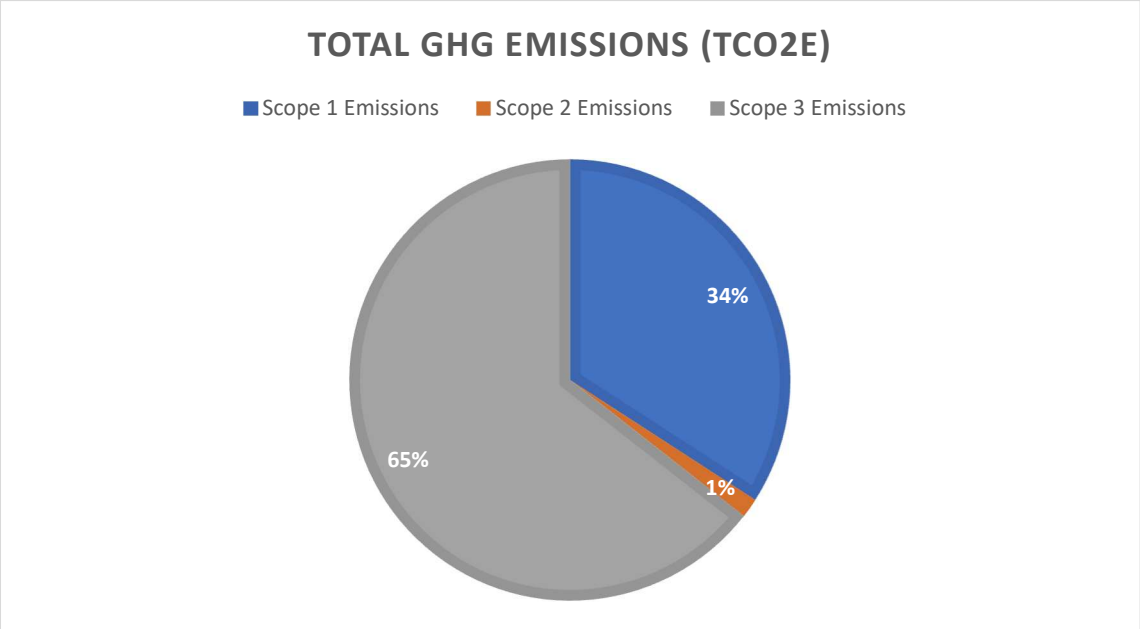

Figure 1: Visual representation of BSG 2025 breakdown of Scope 1, 2 & 3 emissions.

Further comparison across the five years of company reporting are set out in table 6 below.

	2021	2022	2023	2024	2025
	Total (tCO2e)	Total (tCO2e)	Total (tCO2e)	Total (tCO2e)	Total (tCO2e)
2021 Scope 1 Emissions	555.00	423.14	360.49	466.56	429.14
2021 Scope 2 Emissions	9.82	21.62	5.30	11.53	18.20
2021 Scope 3 Emissions	941.49	828.79	662.38	684.10	809.94
	1506.31	1273.55	1028.17	1162.18	1257.28

Table 6: Comparison of total GHG emissions from Scope 1, Scope 2 and Scope 3 activity, across all reporting years to date.

The figures from this reporting year are well below that of the base year. Reductions in reported GHG emissions is not linear. The calendar year 2023 recorded the lowest organisational emissions, and they have increased each year since. The reason are commented on throughout the report but can be characterised by workflow output on a given year and geographic distribution of work locations. Civil engineering and construction works are temporary projects, hence swings in variation will be noted each year.

Data published by the ONS in 2025 revealed the breakdown of GHG emissions by work type in construction in 2023. Constructions and construction works for civil engineering emitted 4.4 million tonnes in the year. ONS (2025) also identify that in 2023, construction's carbon-based fuel usage increased by 1.6% on the previous year. This is primarily driven by increases in diesel usage owing to the transportation of resources and personnel during construction projects. Recent findings from Li., et al. (2025) suggests that construction carbon footprint is projected to more than double by 2050. This signals the embedded challenges within the industry.

BSG are continuing to work alongside their supply chains to encourage self-reporting of GHG emissions. This is a large body of work that involves knowledge transfer and upskilling of both employees and valued partners. Collaboratively working to solve these complex problems will ensure that BSG are on course to meet the projected carbon emissions reduction target. Growing the business growth objectives and balancing GHG emissions is a challenge that BSG are committed to achieving through sustainable development and continuous improvement.

5.0 Intensity Ratio

Streamlined Energy and Carbon Reporting (SECR) requires organisations to include at least one intensity ratio. The intensity ratio contextualises emissions data in relation to an appropriate business metric. SECR Intensity ratios are calculated by dividing total emissions by BSG metric's for both sales revenue and number of full time employees for the reporting year.

Intensity ratio for 2025 sales revenue is calculated to be 70tCO2e per £million, based on total sales of £17,401,907. Moreover, BSG can report 12tCO2e per full time employee, based on 104 employees.

Cabinet Office

Notes for Completion

Where an In-Scope Organisation has determined that the measure applies to the procurement, suppliers wishing to bid for that contract are required at the selection stage to submit a Carbon Reduction Plan which details their organisational carbon footprint and confirms their commitment to achieving Net Zero by 2050.

Carbon Reduction Plans are to be completed by the bidding supplier[6] and must meet the reporting requirements set out in supporting guidance and include the supplier's current carbon footprint and its commitment to reducing emissions to achieve Net Zero emissions by 2050.

The CRP should be specific to the bidding entity, or, provided certain criteria are met, may cover the bidding entity and its parent organisation. In order to ensure the CRP remains relevant, a Carbon Reduction Plan covering the bidding entity and its parent organisation is only permissible where the detailed requirements of the CRP are met in full, as set out in the Technical Standard[7] and Guidance[8], and all of the following criteria are met:

- The bidding entity is wholly owned by the parent;
- The commitment to achieving net zero by 2050 for UK operations is set out in the CRP for the parent and is supported and adopted by the bidding entity, demonstrated by the inclusion in the CRP of a statement that this will apply to the bidding entity;
- The environmental measures set out are stated to be able to be applied by the bidding entity when performing the relevant contract; and
- The CRP is published on the bidding entity's website.

Bidding entities must take steps to ensure they have their own CRP as soon as reasonably practicable and should note that the ability to rely on a parent organisation's Carbon Reduction Plan may only be a temporary measure under this selection criterion.
The Carbon Reduction Plan should be updated regularly (at least annually) and published and clearly signposted on the supplier's UK website. It should be approved by a director (or equivalent senior leadership) within the supplier's organisation to demonstrate a clear commitment to emissions reduction at the highest level. Suppliers may wish to adopt the key objectives of the Carbon Reduction Plan within their strategic plans.

A template for the Carbon Reduction Plan is set out below. Please complete and publish your Carbon Reduction Plan in accordance with the reporting standard published alongside this PPN.

[6]Bidding supplier or 'bidding entity' means the organisation with whom the contracting authority will enter into a contract if it is successful.

[7]Technical Standard can be found at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991625/PPN_0621_Technical_standard_for_the_Completion_of_Carbon_Reduction_Plans__2_.pdf

[8]Guidance can be found at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/991623/Guidance_on_adopting_and_applying_PPN_06_21___Selection_Criteria___3_.pdf

BSG Carbon Reduction Plan

Supplier name: BSG Civil Engineering Ltd

Publication date: ……26/06/26…….....

Commitment to achieving Net Zero

BSG Civil Engineering Ltd are committed to achieving the UK government's ambitious Science-Based Targets in line with a 1.5°C limit to global warming and to delivering Net Zero by 2050. We are committed to a 78% reduction in emissions by 2035 of the direct GHG emissions that occur from energy sources that are owned or controlled by BSG and working with our value chain to achieving Net Zero by 2050. These targets will be supported by strategies that include initiatives to ensure our commitments are achieved. We will measure and report our GHG emissions annually to support the organisations transition to Net Zero and driving Carbon Reduction through our value chain. BSG is actively working to support our clients in their decarbonisation journey. BSG, as a Tier 1 contractors and Principal Designers for NI Water are committed to finding innovative sustainable solutions where water and wastewater treatment processes can be used to harness renewable energy. In recent BSG lead projects list below we have provided an engineered design solution whereby the minimal waste products generated from the treatment process could be reintroduced into the treatment cycle to further minimise energy and water consumption

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the calendar year 2021. Emissions were produced prior to the introduction of any strategies to help reduce emissions to zero by 2050. Baseline emissions are the reference point against which emissions reduction can be measured. Our Carbon Baseline includes our greenhouse gas (GHG) emissions from the seven GHG's named by the Kyoto Protocol and are calculated in tonnes of carbon dioxide equivalent (CO_2e) using the appropriate conversion factors published by BEIS. BSG emissions data is reported in line with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, and Corporate Value Chain (Scope 3) Standard under the 'Operational Control' approach. BSG's baseline and year one emissions are set out in the table below.

Baseline Year: 2021
Additional Details relating to the Baseline Emissions calculations.
Scope 1 & 2 Emissions Total Scope 1 emissions are the direct GHG emissions which occur from energy sources that are owned or controlled by BSG is recorded as being emissions from burning oil as a fuel source across multiple fixed offices and temporary site accommodation, as well as using diesel as a fuel

source within the 26nr company vehicles. Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the company.

Scope 3 emissions

Scope 3 requires companies to account for GHG emissions along their value chain. These emissions are often a consequence of the activities of the company but occur from sources not owned or controlled by the company. BSG have conducted assessments into our Scope 3 footprint and are reporting on the following subset of Scope 3 categories:

- Upstream transportation and distribution (purchased goods and services),
- Waste generated in operations (waste removal from BSG offices and sites),
- Business travel (flights, land-based travel attributed to mileage from employee-owned cars, overnight accommodation),
- Employee commuting,
- Mains water supply and wastewater treatment to Bank Square main offices only.

Baseline year emissions: 2021

EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	555.00
Scope 2	9.82
Scope 3 **(Included Sources)**	941.49
Total Emissions	1,506.31 tCO2e

Current Emissions Reporting

Reporting Year: 2025	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	429.14
Scope 2	18.20
Scope 3 (Included Sources)	809.94
Total Emissions	1,257.28 tCO2e

Emissions reduction targets

Figure 2 below, highlights the actual (base year) GHG emissions of 1,506tCO2e together with the emissions of subsequent years, versus the projection to 2050. BSG progress can be measured annually against the overall target to a Net-Zero scenario. Attainment of our targets will require a series of reduction initiatives. A selection of recommendations has been included in the SECR report should be read in conjunction accompanies this Carbon Reduction Plan.

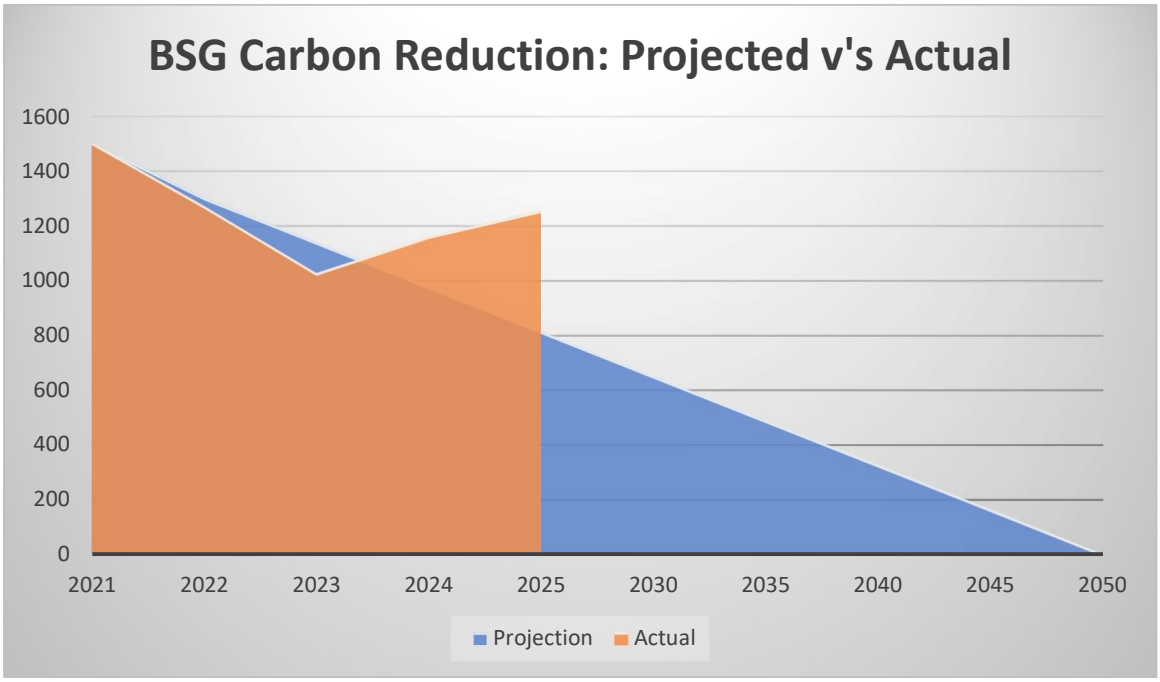

Figure 2: BSG total GHG emissions for the base year and the subsequent reporting years, together with projections to 2050.

BSG are currently in the implementation stage of, short- medium- and longer-term strategy development to reduce the GHG emissions that are under BSG control, as well as communication and collaboration with the value chain, to reduce those outside organisational direct control. Each year, BSG hope to undertake several carbon reduction projects within organisation to gradually decrease GHG emissions.

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been implemented since the 2021 baseline:

- Completed staff awareness training around sustainability, energy and facilities management.
- Facilitated workshop with value chain to underpin the organisations vision for a Net-Zero future and the role of the value chain in aspiration attainment.
- Occupy new high performing, energy efficient office building.
- Adoption of renewable energy electricity generation on site accommodation.
- Designing and building BSG own Battery Backup Site Generators (BBSGs) to support our mobile site teams where local power isn't available to negate the need for the use of heavy diesel-powered generators.
- Organisation strategy development across all pillars of sustainability, incorporating the United Nations Sustainable Development Goals.

BSG are on course to meet the projected carbon emissions reduction target. This will require more considered approaches to supply chain management.

Future Carbon Reduction Initiatives

Going forward, we hope to implement further measures such as:

- Successfully achieve the ISO 50001 certification, the international standard for energy management systems, which will allow us to achieve continual improvement in energy performance.
- Develop a series of strategies that underpin Scope 1 and 2 as well as the five Scope 3 categories that are required by the Carbon Reduction Plan.
- Investigate decarbonisation of electricity generation, with appropriate energy storage.
- Accelerate future deployment of plug-in vehicles, to replace older diesel vehicles.
- Staff Survey - Issue a staff survey to understand travel patterns to and from their place of work.
- Consider fuel switching on all other site processes that contribute to GHG emissions.
- Determine the organisational social value impact and engage with communities to foster a spirit of sustainability and resilience.
- Attainment of PAS 2060 by demonstrating carbon neutrality and PAS 2080 - carbon management in infrastructure.
- Improve data collection processes to avoid double counting of Scope 3 emissions.
- Consider a collaborative research project to investigate the infrastructure and construction innovations to reduce operational emissions in the construction process.
- Create a supplier carbon data repository to ensure that BSG are not double counting GHG emissions.
- Continue to work with supply chain to nudge them towards taking climate action to reduce Scope 3 emissions.
- Develop a protocol for managing supplier carbon and environmental performance. This should include a proportionate approach to achieve a balance between supplier size and scope, as well as contract value and the cost of applying additional measures.

Other Considerations

- Expanding BSG Scope 3 emissions reporting by effectively engaging and working with the supply chain and subcontractors to reduce indirect emissions.
- Monitor Performance through accreditations such as ISO 14001 accredited Environmental Management system and continue to monitor performance across projects and office locations.
- Promote protecting and improving biodiversity.
- Reduction techniques to reduce and re-use water on sites by implement water saving measures to include water efficiency features installed within our site cabins, rainwater capture and recycling of water on site.
- Introduce responsible procurement and create a responsible procurement policy, we to ensure that all key construction materials are sourced from suppliers who have a responsible sourcing accreditation
- Encourage Cycle to Work Scheme
- Afforestation initiatives that align with NI Executives plan to reach 3,100h by 2035 & 4,100h from 2039 until 2050.
- Engineered carbon removals and carbon sequestering initiatives.
- Purchased carbon credit removals from elsewhere.

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with 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[9] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[10].

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[11].

This Carbon Reduction Plan has been reviewed and signed off by the board of directors (or equivalent management body).

Signed on behalf of the Supplier:

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Date: ……

[9] https://ghgprotocol.org/corporate-standard
[10] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[11] https://ghgprotocol.org/standards/scope-3-standard