



QTS Greenhouse Gas Inventory for year 2023



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QTS Group is on a journey to reduce its scope 1 & 2 carbon emissions by 42% by 2030 from a base year of 2020, and scope 3 emissions by 25% by 2030 from a base year of 2022.

1. Descriptive Information

QTS Group Ltd, is one of the UK's leading Rail Contractors, Providing specialist services in Rail Engineering, Infrastructure, Electrification, Design and Training.

This report considers all operations that are within the control of QTS Group, as well as QTS Training and Rail Electrification Ltd (REL). QTS are reporting emissions that are within their operational control. The report shall cover any direct or indirect emissions produced as a result of QTS operations between 1st January 2023 and 31st December 2023.

A screening for scope 3 emissions from all business activity has been undertaken and the results will be displayed within this document. No emissions/activities have been excluded across scopes 1, 2, & 3. Scope 1 and 2 emissions have a base year of 2020, scope 3 has a base year of 2022, details of emissions in base year are included in this report. Our baseline recalculation policy is available to view on our website.

2. Greenhouse Gas Emissions Data CO2e

Below is a table summarising in Metric tons QTS' 2023 CO2e output:

Scopes and Categories	Metric Tons CO2e
Scope 1: Direct emissions from Operations	7164.09
Scope 2: Indirect Emissions from use of purchased electricity.	176.13
Upstream Scope 3 Emissions	
Category 1: Purchased Goods and Services	79,674.44
Category 2: Capital Goods	3667.03
Category 3: Fuel and energy related activities (not included in scope 1 & 2)	1738.15
Category 4: Upstream transportation and distribution.	3746.53
Category 5: Waste Generated in Operations	418.86
Category 6: Business Travel	85.81
Category 7: Employee Commuting	442.24
Category 8: Upstream Leased Assets	14,707.36
Downstream Scope 3 Emissions	
Category 9: Downstream Transportation and Distribution.	0
Category 10: Processing of sold products	0
Category 11: use of sold products	0
Category 12: End of Life Treatment of sold products	0
Category 13: Downstream leased assets	0
Category 14: Franchises	0
Category 15: Investments	0

2.1 Greenhouse Gas Emissions Data

Greenhouse Gas Emissions	CO2		CH4		N2O		HFCs		PFCs		SF6	
	Metric tons CO2.	Metric tons CO2e	Metric tons CH4.	Metric tons CO2e	Metric tons N2O.	Metric tons CO2e	Metric tons of each HFC.	Metric tons CO2e	Metric tons of each PFC	Metric tons CO2e	Metric tons SF6.	Metric tons CO2e
Scope 1	7164.09	7164.09	0.070	1.41	0.294	90.62	0	0	0	0	0	0
Scope 2	176.13	176.13	0.035	0.725	0.0032	0.985	0	0	0	0	0	0

3. Biogenic CO2 Emissions data

QTS Group currently have no activities or operations which are involved/produce Biogenic Emissions.

4. Description of Methodologies and Data Used

Scopes and Categories	Methodologies used to calculate/Measure emissions
Scope 1	Emissions are calculated from real data gathered on volume of fuels used, these are then multiplied by the relevant conversion factors. Conversion factors are taken from the GOV UK Website for the relevant years. (Greenhouse gas reporting: conversion factors 2023 - GOV.UK (www.gov.uk))
Scope 2	Emissions are calculated from real data gathered on kWh used, these are then multiplied by the relevant conversion factors. Conversion factors are taken from the GOV UK Website for the relevant years. (Greenhouse gas reporting: conversion factors 2023 - GOV.UK (www.gov.uk))

Scopes and Categories	Types and sources of data Used.	Data Quality of Reported Emissions.	Methodologies and assumptions	% of emissions Calculated by using data provided from the value chain.
Upstream Scope 3 Emissions				
Category 1: Purchased Goods and Services	Spend Data, Turnover data. QTS Procurement, QTS Accounts.	Moderate quality, Calculator used is outdated. (Screening)	Calculated using spend data from 2022, then scaled up by % increase in turnover. Link below to calculator. Scope 3 Evaluator (quantis-suite.com)	0
Category 2: Capital Goods	Spend Data, QTS Accounts.	Moderate Quality, Calculator used is Outdated. (Screening)	Calculated using spend data from 2022, then scaled up by % increase in turnover. Link below to calculator. Scope 3 Evaluator (quantis-suite.com)	0
Category 3: Fuel and energy related activities (not included in scope 1 & 2)	Fuel/ Energy usage data. QTS Environment Team/ Reports from Suppliers.	High Quality of data from reports, Resulting in accurate figures.	Real data used & Multiplied by relevant conversion factors. ghg-conversion-factors-2022-full-set.xls (live.com)	100%

Category 4: Upstream transportation and distribution.	Spend Data, QTS Procurement.	Moderate quality, Calculator used is outdated. (Screening)	Calculated using spend data from 2022, then scaled up by % increase in turnover. Link below to calculator. Scope 3 Evaluator (quantis-suite.com)	
Category 5: Waste Generated in Operations	Waste data. QTS Environment Team/ Reports from Suppliers.	High Quality of data from reports, Resulting in accurate figures.	Real data used & Multiplied by relevant conversion factors. ghg-conversion-factors-2022-full-set.xls (live.com)	100%
Category 6: Business Travel	Data from staff/ Workload.	Low quality	Estimations of business travel based on average travel from 10 employees.	0%
Category 7: Employee Commuting	Staff Survey, QTS Environment Team.	Moderate Quality data and emissions.	Average Commuting distance and fuel types of vehicles. Based on 2023 survey.	0%
Category 8: Upstream Leased Assets	Spend Data, QTS Procurement.	Moderate quality, Calculator used is outdated. (Screening)	Calculated using spend data from 2022, then scaled up by % increase in turnover. Link below to calculator. Scope 3 Evaluator (quantis-suite.com)	0
Downstream Scope 3 Emissions				
Category 9: Downstream Transportation and Distribution.	Sold Product deliveries.	High quality.	No Sold Products. All transportation is Scope 1	
Category 10: Processing of sold products	Sold Products Processing	High Quality	No sold Products.	
Category 11: use of sold products	No Sold Products	High		
Category 12: End of Life Treatment of sold products	No sold Products	High		
Category 13: Downstream leased assets	No Assets leased	High		
Category 14: Franchises	No Franchises.			
Category 15: Investments	No Investments.			

4.1 Data Quality

QTS Group are aware that the quality of some scope 3 emissions data is not accurate or precise due to the raw data being based on spend. Scope 3 emissions have been calculated on a screening basis and are expected to change by more than 5% which will result in the base line recalculation policy being triggered. QTS Group has been working with external partners to get a better and more accurate method of calculation for scope 3 categories and this will be used when calculating emissions data from year 2024 onwards.

5. Base Year Greenhouse Gas emissions.

Below is a table summarising QTS' Base year Greenhouse Gas emission, for scopes 1 & 2 this is year 2020, For all scope 3 this is year 2022.

Scopes and Categories	Metric Tons CO2e
Scope 1: Direct emissions from Operations	7521
Scope 2: Indirect Emissions from use of purchased electricity.	204
Upstream Scope 3 Emissions	
Category 1: Purchased Goods and Services	78,574.4
Category 2: Capital Goods	3616.4
Category 3: Fuel and energy related activities (not included in scope 1 & 2)	1769.2
Category 4: Upstream transportation and distribution.	3694.8
Category 5: Waste Generated in Operations	299.8
Category 6: Business Travel	84.63
Category 7: Employee Commuting	402
Category 8: Upstream Leased Assets	14,504.3
Downstream Scope 3 Emissions	
Category 9: Downstream Transportation and Distribution.	0
Category 10: Processing of sold products	0
Category 11: use of sold products	0
Category 12: End of Life Treatment of sold products	0
Category 13: Downstream leased assets	0
Category 14: Franchises	0
Category 15: Investments	0

6. Greenhouse Gas Sequestration and Removals.

QTS Group have two forms of Carbon Sequestration on site at their head office, neither of which have any accreditation. One of these is a large woodland with around 90,000 trees. Based on Research conducted by QTS environment manager this woodland absorbs 900 tonnes of CO2 per annum. QTS Group also have any area of peatland on site, some restoration work has gone into this. It is estimated that the peatbog captures 22.5 tCO2 per annum. This doesn't consider avoided emissions through the restoration work.

7. Reduction Activities.

In January 2024 QTS have submitted Science based targets.

Other Planned reduction activities in 2024 targeted at reducing emissions are:

- Increased usage of HVO across site operations.
- Roll out of Hybrid power generation across all temporary sites.
- Increasing size of Electric Vehicle (EV) fleet.
- Increase EV chargers at all permanent office locations.
- Increase in owned renewables.
- Anti Vehicle Idling Campaign.
- Reduction in 4x4 vehicle usage.
- Continue on renewable electricity tariffs.

Scope 3 supplier engagement surveys are being analysed to understand where our supply chain partners are in their journey to reducing emissions. Areas that may require additional support will be identified.

8. Policies and Assurance

QTS Group hold ISO accredited certifications 14001, 50001 & 9001. ISO 14001 & 50001 help to track the Environmental and Energy performance of the business, which in turn results in savings of emissions/ pollution events and more.

The following policy statements are also available on QTS group website:

- Energy Management issue 6th May 2024

9. Additional Information

QTS Group shall report each year on GHG emissions in a report of a similar format to this.

Additional information on emission reduction performance may be published on the company website/ social media throughout the year. The next annual emissions report shall be published by QTS Group no later than 31st March 2024, the scope of the next report shall be all emissions from Year 2024.