

PPN 06/21 - Roke Carbon Reduction Plan

Supplier name: Roke Manor Research Ltd Publication date: 11th March 2025

Changing Worlds

Carbon Reduction Plan

Commitment to achieving Net Zero

Roke Manor Research Ltd is committed to achieving Net Zero emissions by 2050.

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and were produced prior to the introduction of any strategies to reduce emissions. Baseline emissions are the reference point against which emissions reduction can be measured.

BASELINE YEAR: 20201

Additional Details relating to the Baseline Emissions calculations.

For Reporting Year 2024 Roke has changed its carbon accounting software to Sphera across the business. This is used to record CO₂e data on its operations and applies the UK Government "Greenhouse gas reporting: conversion factors" for the year of reporting.

Roke uses both location and market-based emission data in line with GHG Protocol Scope 2 guidance which recommends a dual reporting structure, in which Scope 2 emissions are calculated using both market-based and location-based accounting processes in tandem.

Roke continues to collect its Scope 3 emission data, and these will mature throughout 2025 and beyond.

Chemring Group's consolidated data (which Roke feeds into) uses ERM CVS consultancy to audit the system and records to give independent third-party assurances to ensure transparency in emissions data. ERM use a ISAE 3000 assurance process for the GHG audits.

¹ Baseline year covers period of 1st of November 2019 to 31st of October 2020

REPORTING YEAR: 2020	
EMISSIONS	TOTAL (tCO2e) ²
Scope 1	
Natural Gas	4.61 – Manchester ³ 9.80 – Bristol ⁴
Liquid Fuels	177.8 Diesel – Romsey
Refrigerants	52.2
Scope 1 Total	244.4
Scope 2	
Electricity Market Based	0 - Romsey ⁵ 78.47 - Woking 11.99 - Gloucester 17.60 - Bristol ⁶
Scope 2 Total	108.06
Scope 3	
Upstream transportation and distribution	Not measured
Business travel	Not measured
Employee commuting	Not measured
Waste generated in operations	Not measured
Downstream transportation and distribution	Not measured
Scope 3 Total	Not measured
TOTAL EMISSIONS	352.47

 ² Government "Greenhouse gas reporting: conversion factors 2020
³ This is a previous Manchester location
⁴ Data from a previous company acquisition, based in Bristol
⁵ Scope 2 emissions for Romsey in 2020 were 645.7 tonnes (Location based) but through the purchasing of green energy /REC/ROC/REG0 this now stands at 0 tonnes
⁶ As per footnote 4

Current Emissions Reporting

REPORTING YEAR: 2024 ⁷	
EMISSIONS	TOTAL (tCO2e) ⁸
Scope 1	
Natural Gas	1.2 – Manchester 5.5 – Woking 0 – Romsey ⁹ 0 – Gloucester
Liquid Fuels	0.38 Mobile Diesel - Romsey 1.84 HVO - Romsey 0 - Other sites
Refrigerants	24.36 - Romsey
Scope 1 Total	33.3
Scope 2	
Electricity Market Based	0 - Romsey 5.04 - Woking 30.6 - Gloucester 1.09 - Manchester
Scope 2 Total	36.7
Scope 3	
Upstream transportation and distribution	106810
Business travel	207
Employee commuting	19.1
Waste generated in operations	1.88
Downstream transportation and distribution	Not currently measured
Scope 3 Total	1296
TOTAL EMISSIONS	1366

 7 2024 year covers the period 1st of November 2023 to 31st of October 2024

⁸ Government "Greenhouse gas reporting: conversion factors 2024
⁹ Scope 2 emissions for Romsey in 2024 were 584 tonnes (Location based) but through the purchasing of green energy REC/ROC/REGO this now stands at 0 tonnes.
¹⁰ Data for this was only collected for 6 months and therefore doesn't represent a full year

Emissions Reduction Targets

Roke have committed to all Scope 1 and Scope 2 carbon emissions being Net Zero by 2030 and to become a Net Zero business by 2050. We are developing options to reduce CO₂e further, these targets will be phased over the period to 2050.

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets:

- An ongoing commitment to reduce our Scope 1 and 2 carbon emissions to zero by 2030
- We will set a combined Scope reduction target once we are able to fully report and verify Scope 3 emissions (by end of 2025)



Scope 1 & 2 Actual Vs Target

Due to new methodologies and more accurate data collection the figures for FY23 have been adjusted compared to Roke's previous Carbon Reduction Plan submission. A graph including Scope 3 data will be included in the FY25 report.

Carbon Reduction Projects

Carbon Reduction Update

The following environmental management measures and projects have been implemented by Roke since the **2020** baseline.

52.1% of all Roke's Scope 1 and 2 emissions are from Scope 2 use of electricity; currently Roke in Romsey is ensuring its electricity requirements are coming from reputable and verifiable RECs/REGO/ROCs providing a market-based figure of 0 tonnes of CO₂e emission for that site. Roke Gloucester also moved to a green tariff in October 2024. Roke's other sites will be reviewed and a change in tariff explored.

34.5% of these emissions are from fugitive emissions from the Romsey site. Whilst our refrigerant systems are inspected and maintained, further work will take place to investigate upgrading and changing the systems for those with lower Global Warming Potentials.

Carbon Reduction Initiatives to date

- ESOS 3 Project No. P313102.02 September 2023
- Replaced Diesel at Romsey with Hydrotreated Vegetable Oil (HVO) from April 2022
- 20 Electric vehicle charging points
- Refurbishment of Pavilion to include better insulation, temperature control, PIR lighting
- Tusker car benefit scheme offering Hybrid, PHEV and EV cars for Roke staff
- Replacement Major Chiller Unit with on demand driven pumps.
- ESG/Corporate Social Value 'Climate Change' Working Group established
- Implementation of reporting platform (Sphera) for ESG and tCO₂e data capture
- JOSCAR (joint supply chain accreditation register) Zero registration
- Gloucester electricity has moved onto a green tariff from October '24
- Implementation of Thrive, used for the reporting and management of Roke's social values
- Replacement of the HVO tank, reducing storage quantity on site

Continuance Carbon Reduction Initiatives

- BSI Certified ISO 14001 Environmental Management System Continued assessment and recertification (certificate EMS 580346)
- Sourcing reputable and verifiable RECs/REGO/ROCs.

Future Carbon Reduction Initiatives

- LED lighting replacement ongoing
- PIR light controllers, ongoing
- ESOS 3 Environmental engineering recommendations for alternative integrated environmental power supplies
- Review set point temperature in IT servers and data centres
- Procurement of more energy efficient IT Servers
- Upgraded Building Management System programme at Romsey
- Explore replacement of f-gas
- Explore replacement of boilers
- Replacement of the Uninterrupted Power Supply (UPS)
- Explore green tariffs for Manchester and Woking

Declaration & 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 and uses the appropriate Government emission conversion factors for greenhouse Gas Company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

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

Signed on behalf of the Supplier:

Paul MacGregor Managing Director – Roke Manor Research Ltd Date: 11 March 2025



We believe in improving the world through innovation. We do it by bringing the physical and digital together in ways that revolutionise industries.

That's why we've fostered an environment where some of the world's finest minds have the freedom, support and trust to succeed.

Roke is a team of curious and deeply technical engineers dedicated to safely unlocking the economic and societal potential of connected real-world assets. Our 60 year heritage and deep knowledge in sensors, communications, cyber and AI means our people are uniquely placed to combine and apply these technologies in ways that keep people safe whilst unlocking value. For our clients, we're a trusted partner that welcomes any problem confident that our consulting, research, innovation and product development will help them revolutionise and improve their world.

If you're bringing the physical and digital worlds together, we'd love to talk.

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