



**ROKE**

# PPN 06/21 - Roke Carbon Reduction Plan

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Roke Manor Research Ltd  
Publication Date: 22 February 2024

# Carbon Reduction Plan

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**Supplier name:** Roke Manor Research Ltd

**Publication date:** 22 February 2024

## Commitment to achieving Net Zero

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

## Baseline Emissions Footprint

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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: 2020<sup>1</sup>**

#### **ADDITIONAL DETAILS RELATING TO THE BASELINE EMISSIONS CALCULATIONS**

Roke uses EcoOnline, EHS reporting system to gather data from across the business to provide CO<sub>2</sub>e data on its operations and apply 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 was already monitoring and recording Scope 1 and 2 emissions for its operations, but a suitable robust and verifiable system was not in place to accurately capture Scope 3 emission at this point, but a future date of October 2023 was set as the point in which a suitable Scope 3 system will be implemented.

Roke’s Scope 3 emission data is crucial to our road map to Net Zero and as such several systems are being assessed for suitability, viability and validity to ensure we can accurately capture our Scope 3 emission and ensure the data is suitable for independent third-party verification.

Roke uses ERM CVS consultancy to audit our system and record to ensure independent third-party assurances to ensure transparency in our emissions data, ERM use a ISAE 3000 assurance process for the GHG audits.

Scope 3 data analysis and collection methodology has identified that Roke geographical hub offices which are leased, and consequently fall under the control reporting methodology in line with GHG protocol and therefore are to be included in Scope 1 and 2 will be fully reported for the baseline year. This has been based on office area (m<sup>2</sup>) and energy performance certificate rating. Going forward, this will be fully reported.

REPORTING YEAR: 2020	
EMISSIONS	TOTAL (tCO <sub>2</sub> e) <sup>ii</sup>
<b>Scope 1</b>	
Natural Gas	4.61 – Manchester 9.80 – Geollect
Liquid Fuels	177.8 (Diesel) – Romsey
Refrigerants	52.2
<b>Scope 1 Total</b>	244.4
<b>Scope 2</b>	
Electricity Market Based	0 – Romsey <sup>iii</sup> 78.47 – Woking 11.99 – Gloucester 17.60 – Geollect
<b>Scope 2 Total</b>	108.06
<b>Scope 3</b>	
Upstream transportation and distribution	Not currently measured
Business travel	Not currently measured
Employee commuting	Not currently measured
Waste generated in operations	Not currently measured
Downstream transportation and distribution	Not currently measured
<b>Scope 3 Total</b>	Not currently measured
<b>TOTAL EMISSIONS</b>	352.47

# Current Emissions Reporting

REPORTING YEAR: 2023 <sup>iv</sup>	
EMISSIONS	TOTAL (tCO <sub>2</sub> e) <sup>v</sup>
<b>Scope 1</b>	
Natural Gas	4.51 – Manchester 8.79 – Geollect
Liquid Fuels	0.88 (Diesel) - Romsey 1.83 (HVO) - Romsey
Refrigerants	0
<b>Scope 1 Total</b>	16.01
<b>Scope 2</b>	
Electricity Market Based	0 – Romsey <sup>vi</sup> 65.0 – Woking 5.47 – Gloucester 17.29 – Geollect
<b>Scope 2 Total</b>	87.76
<b>Scope 3</b>	
Upstream transportation and distribution	Not currently measured
Business travel	Not currently measured
Employee commuting	Not currently measured
Waste generated in operations	Not currently measured
Downstream transportation and distribution	Not currently measured
<b>Scope 3 Total</b>	Not currently measured
<b>TOTAL EMISSIONS</b>	103.77



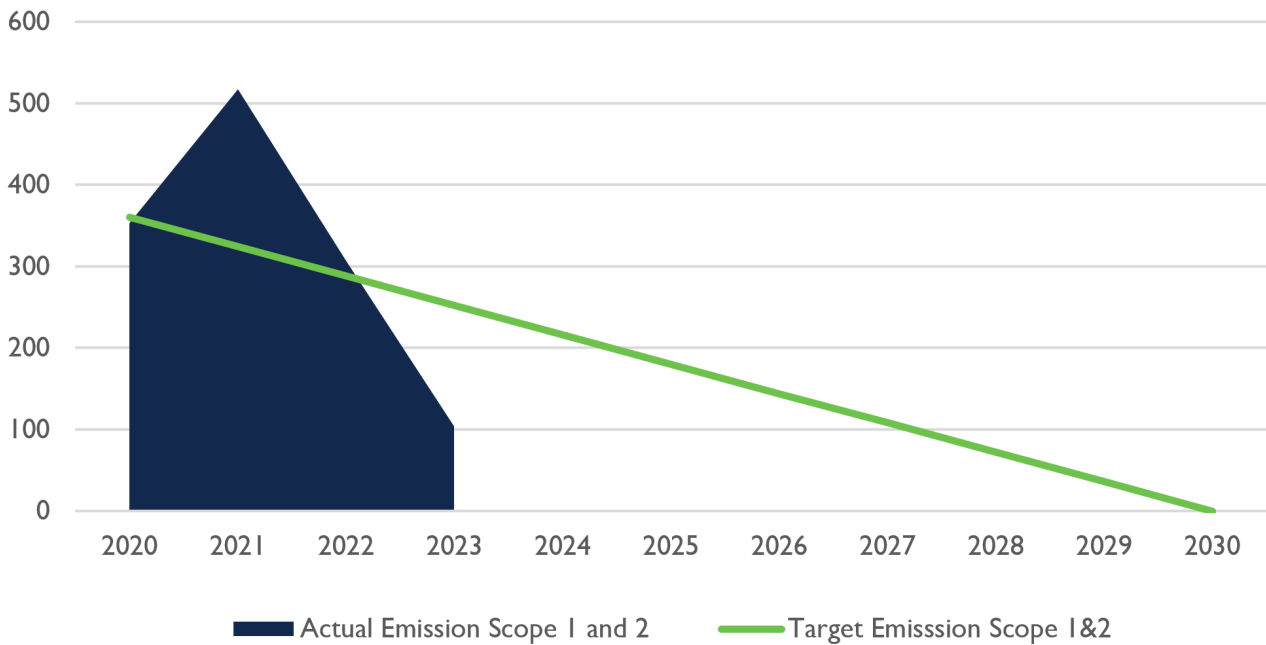
# Emissions Reduction Targets

Roke has committed to all controlled operations being Net Zero by 2030 and to become a Net Zero business by 2050. We are developing options to reduce CO<sub>2</sub>e 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:

- We project that Scope 1 & 2 carbon emissions will decrease over the next five years from 2020 figure of 352.47 tCO<sub>2</sub>e to 180tCO<sub>2</sub>e by 2025. This is a reduction of 48.9%
- We will set a combined Scope reduction target once we are able to fully report and verify Scope 3 emissions as of October 2024.

### Carbon Reduction: Scope 1 & 2 Actual vs. Target



# Carbon Reduction Projects

## Carbon Reduction Update

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

84.6% of all Roke's Scope 1 & 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 CO<sub>2</sub>e emission for that site, the remaining hub sites in Bristol, Gloucester, Manchester and Woking options are being explored with landlords for green tariff opportunities in FY24.

Roke's remaining emissions are Scope 1 which is from gas, liquid fuel and Refrigerant usage. To address these emissions Roke have sourced and used Hydrotreated Vegetable Oil (HVO) to reduce liquid fuel emissions and are upgrading and adhering to maintenance requirements to improve fugitive emission from aircon systems to help reduced the emission from Scope 1.

## Carbon Reduction Initiatives to date:

- ESOS 3 Project No. P313102.02 September 2023
- Replaced Diesel with Hydrotreated Vegetable Oil (HVO) from April 2022
- 12 Electric vehicle charging points
- Refurbishment of Pavilion to include better insulation, temperature control, PIR lighting
- Refurbishment of 140 seat Hub space in leased building LED and PIR lighting, close to public transport hubs EPC C
- 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

## 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:

- ESG and tCO<sub>2</sub>e data capture and reporting platform for all scopes roll out Jan 2024 (SPHERA)
- JOSCAR (Joint Supply Chain Accreditation Register) Zero registration
- Investment and contracting of Waste Agent for efficient capture of Scope 3 Category 5
- LED lighting replacement ongoing - potential reduction 8.1 tCO<sub>2</sub>e
- PIR light controllers, ongoing - potential reduction 1.9 tCO<sub>2</sub>e
- ESOS 3 Environmental engineering recommendations for alternative integrated environmental power supplies
- Replacement of Oil boilers
- Review set point temperature in IT servers and data centres – potential reduction 11.4 tCO<sub>2</sub>e
- Reduce UPS active capacity, rebalance – potential reduction 12.5 tCO<sub>2</sub>e
- Improve cooling system in UPS Car park - potential reduction 9.8 tCO<sub>2</sub>e

# Declaration and Sign Off

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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: 22 February 2024

- i Baseline year covers period of 1st of November 2019 to 31st of October 2020
- ii Government "Greenhouse gas reporting: conversion factors 2020
- iii Scope 2 emissions for Romsey in 2020 were 645.7 tonnes (Location based) but through the purchasing of green energy /REC/ROC/REGO this now stands at 0 tonnes
- iv 2023 year covers the period 1st of November 2022 to 31st of October 2023
- v Government "Greenhouse gas reporting: conversion factors 2023
- vi Scope 2 emissions for Romsey in 2023 were 866 tonnes (Location based) but through the purchasing of green energy /REC/ROC/REGO this now stands at 0 tonnes

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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.

### **Roke Manor Research Ltd**

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