Carbon Reduction Plan

Supplier name: RHEATECH Ltd

Building R71 Rutherford Appleton Laboratory, Harwell Oxford, Didcot, Oxfordshire, United Kingdom, OX11 0QX

Publication date: October 2021

Commitment to achieving Net Zero

RHEATECH 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: January to December 2019
Additional Details relating to the Baseline Emissions calculations.
RHEATECH Ltd (RHEA) here below presents its annual emissions baseline for the year of 2019 (pre Covid pandemic). RHEA provide professional engineering services and systems engineering services in the space sector. In the UK, RHEA employs <25 staff. The RHEA office is leased and located amongst other companies in Building R71 on the Harwell Campus site, managed by the UK Research and Innovation (UKRI) Rutherford Appleton Laboratory (RAL) and Science and Technology Facilities Council (STFC). The Harwell Science and Innovation Cluster is a low carbon cluster. The EPC rating for Building R71 is C. RHEA's annual emissions baseline, measured according to best practices for Private Sector organisations, is 103.465 tonnes of carbon dioxide equivalent (TeCO2e) based on 2019-2020 emissions. This data set was selected **to avoid the impact of COVID-19**. As an extremely small energy user, RHEA has not previously assessed or reported emissions and therefore its first reporting period will be used as its baseline. This baseline encompasses emissions resulting from: utilities use within leased buildings, grey fleet (personal vehicles) and business travel (air, road, rail). Emissions calculations estimates have been derived using the 2021 Greenhouse Gas conversion factors. The following definitions of Scopes 1-3, as detailed in the documentation by the Cabinet Office, are presented below for reference, with an additional comment applicable to RHEA for Scope 1: • Scope 1: Direct greenhouse gas emissions that occur from sources that are controlled or owned by the reporting organization. E.g., emissions associated with fuel combustion

in boilers, furnaces, vehicles – **Scope 1 emissions are not applicable to RHEA as RHEA do not own these types of assets.**

- Scope 2: Indirect greenhouse gas emissions associated with the purchase of electricity, steam, heat, or cooling. They are accounted for by the reporting organization as they are a result of the organization's energy use.
- Scope 3: Include all sources not within an organization's scope 1 and 2 boundary. Scope 3 emissions often represent the majority of an organisation's total greenhouse gas emissions – including business travel, employee commuting, waste generated in operations, upstream transportation and distribution, downstream transportation and distribution.

Baseline year emissions:

EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	N/A
Scope 2	9.86 0.053
Scope 3 **(Included Sources)**	Staff commuting to office 35.19 Business travel 58.3 Upstream transport 0.013 Waste 0.046 Downstream transport N/A for RHEA services
Total Emissions	103.465

Current Emissions Reporting

Reporting Year: January to December 2021	
EMISSIONS	**TOTAL (tCO_2e)**
Scope 1	To be assessed Q1 2022
Scope 2	To be assessed Q1 2022

Scope 3 **(Included Sources)**	To be assessed Q1 2022
Total Emissions	To be assessed Q1 2022

Emissions reduction targets

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets (as adjusted for headcount):

- Reduce travel into the office from an average of four (4) days a week to an average of three (3) days a week to greatly decrease commuting emissions.
- Reduce the number of business-related flights where possible by either using alternative means of transportation (e.g., Eurostar) or encouraging the use of videoconferencing where possible as an alternative.
- Encourage staff (if applicable) to replace diesel vehicles with hybrid or electric vehicles.

We project that carbon emissions will decrease over the next five years to **82** tCO_2e by 2025. This is a reduction of **20**%.

Carbon Reduction Projects

Completed Carbon Reduction Initiatives

Since the Covid-19 pandemic, multiple energy-saving projects have been launched and will continue to be launched this year by UKRI on the Harwell campus, with the goal of reaching net zero greenhouse gas emissions from their estates by 2040.

This includes the installation across site of the following:

- Solar panels
- Heat pumps
- Insulation
- LED lighting

This will greatly improve the efficiency of buildings such as Building R71 in which RHEA is located.

In the future we hope to implement further measures such as:

- Consider ISO 5001 Energy Management System – to implement an effective energy management system which minimises environmental effects.
- Consider extending this policy to RHEA Group, to have a broader overview of the Groups emissions worldwide.
- Ensure Building R71 which RHEA (and others) occupy is fitted with highly energy efficient LED lighting, in accordance with site management.
- Ensure EV charging points are available for RHEA employees, in accordance with site management. The site already has EV charging points, but the numbers could be increased to allow for and encourage the use of additional electric vehicles.

- Replace the heating system on site for Building R71 with heat pump technology, in accordance with site management.
- Encourage cycling to work scheme/ e-bikes scheme. Current investments in cycling infrastructure include the Science Vale Cycle Network which will connect Oxfordshire science parks such as the Harwell Campus with the surrounding area. [1]

Declaration and Sign Off

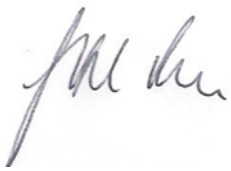
This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard[2] and uses the appropriate Government emission conversion factors for greenhouse gas company reporting[3].

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[4].

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:



John Bone

Chief Commercial Officer

Date: 14/10/2021

[1] Pathways to a zero Carbon Oxfordshire - https://www.eci.ox.ac.uk/publications/downloads/PazCo-final.pdf
[2] https://ghgprotocol.org/corporate-standard
[3] https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting
[4] https://ghgprotocol.org/standards/scope-3-standard