

Carbon Reduction Plan

Supplier Name: UK Centre for Ecology & Hydrology (UKCEH)

Publication date: 15th August 2023

Commitment to achieving Net Zero

The UK Centre for Ecology & Hydrology (UKCEH) is an independent, not-for-profit research institute carrying out excellent environmental science with impact. UKCEH operates from four main sites, undertaking monitoring and research across the UK and at an international scale. UKCEH is committed to achieving Net Zero for greenhouse gas emissions resulting from directly controlled activities by 2040 as set out in our [Environmental Policy](#). We will further seek to reduce greenhouse gas emissions associated with the activities that we can influence, through collaborative working with our partners, suppliers, clients and other stakeholders.

This Carbon Reduction Plan focuses on emissions arising from UKCEH's operational, research and innovation activities. At the same time, our research and innovation strengthen the methodology of national and regional greenhouse gas emission inventories here in the UK and overseas, and enables the development and implementation of sustainable land management and renewable energy interventions across countryside, farmland and offshore. The UKCEH Research & Innovation Strategy: 2025 can be found [here](#).

Baseline Emissions Footprint

Baseline emissions are a record of the greenhouse gases that have been produced in the past and form the reference point against which emissions reduction can be targeted and measured. UKCEH has operated an environmental management system certified to ISO 14001 since 2010 and achieved substantial reductions to resource use since then.

In December 2019 UKCEH was established as an independent not-for-profit research institute, with full control over purchasing and investment decisions from that date.

Baseline Year: 2021	
Additional Details relating to the Baseline Emissions calculations.	
Due to disruption and transformational changes to working practices from March 2020, through the pandemic, UKCEH's baseline will be established based on 2021 emissions.	
Baseline year emissions:	
EMISSIONS	TOTAL (tCO₂e)
Scope 1	849.89 - Direct emissions from buildings, fuel use and fleet vehicles
Scope 2	471.81 - Emissions from purchased electricity

Scope 3 (Included Sources)	669.39 This figure includes the following categories: 428.32 - Employee Commuting 88.32 - Upstream Transportation and Distribution ¹ 80.39 - Business Travel 66.68 - Electricity Transmission and Distribution 2.7 - Waste generated in operations 2.27 - Water supply and water treatment 0.71 - Downstream Transportation and Distribution ¹
Total Emissions	1991.09

Current Emissions Reporting

Reporting Year: 2022	
EMISSIONS	TOTAL (tCO ₂ e)
Scope 1	858.91
Scope 2	283.07
Scope 3 (Included Sources)	996.74 This figure includes the following categories: 313.88 - Employee Commuting 166.19 - Upstream Transportation and Distribution 449.98 - Business Travel 61.80 - Electricity Transmission and Distribution 2.61 - Waste generated in operations 1.86 - Water supply and water treatment 0.42 - Downstream Transportation and Distribution
Total Emissions	2138.72

Emissions reduction targets

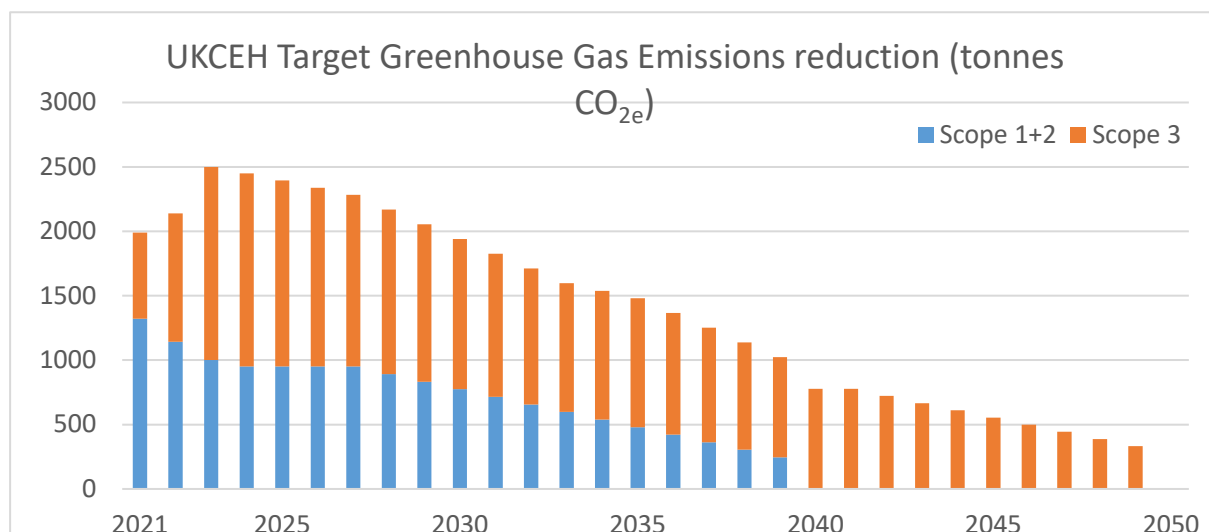
In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction targets.

'Reduce UKCEH reliance on fossil fuels and achieve 'Net Zero' greenhouse gas emissions for directly controlled sources by 2040.'

As part of this commitment we are currently working to develop a full net zero implementation plan which will identify science based interim targets for achievement towards this goal. We recognise that emissions increased in 2022 due to the resumption of business activities and scientific research projects across the globe.

¹ It was incorrectly believed additional downstream T+D was undertaken but further review of reporting guidance has identified such T+D must be reported within Category 4 as the services are purchased by UKCEH directly. A minor correction has been made to the Upstream T+D figure for 2021 relating to catalogue supplier delivery calculations.

We project that Scope 1 & Scope 2 carbon emissions will decrease over the next five years to 965 tCO_{2e} by 2027. This is a reduction of 27% of our Scope 1 & Scope 2 baseline emissions.



Carbon Reduction Projects

Completed Carbon Reduction Initiatives

The following environmental management measures and projects have been completed during 2022:

- Moved to a REGO backed 'zero carbon' renewable electricity tariff for all UKCEH sites directly purchasing electricity from 01 April 2022.
- Further improvements made to remote data capture for scientific research to reduce field site travel needs.
- On-going replacement of building lighting with LEDs /PIR lighting controls.
- On-going upgrades to IT infrastructure and individual worker equipment to enable improved remote working and reduced business travel needs.
- Achievement of the Laboratory Efficiency Assessment Framework Silver certification in our Lancaster Chemistry laboratories.

Some initiatives initially identified for 2022 implementation were unavoidably delayed. From 2023 we plan to progress measures to reduce reliance on fossil fuels including through:

- Appointing Director level Strategic Champions to drive forward UKCEH environmental goals.
- Detailed decarbonisation survey of our main sites by UKRI to identify future carbon reduction projects.
- Progress with delayed upgrades to our site sub-metering and Building Management Systems to better identify energy reduction opportunities on our main sites
- Implement the Laboratory Efficiency Assessment Framework across all remaining laboratories on our main sites to Gold Standard.
- Install further on-site renewable energy generation infrastructure on our main sites, initially focussing on our Lancaster site.
- Circulate sustainable business travel guidance to inform decision makers on travel need and low carbon alternatives.
- Move to increased use of electric and ULEV vehicles for business travel requirements, where appropriate to do so.

- Closer working with our key suppliers to identify opportunities to reduce carbon emissions associated with procurement decisions.

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.

Greenhouse gas emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard² and uses the appropriate Government emission conversion factors for greenhouse gas company reporting³.

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. The Welsh Public Sector Net Zero Reporting Guidance (Version 2.0)⁴ has been utilised for calculating public transport and employee commuting emissions. The Defra “Table 13” indirect emissions from the Supply Chain⁵ has been utilised for spend calculations of Upstream Transport and Distribution emissions. Well-to-Tank emissions have been calculated, where known, and identified as a separate line in the Scope 3 emissions breakdown.

This Carbon Reduction Plan has been reviewed and endorsed by the board of directors (or equivalent management body), namely UKCEH’s Executive Committee.

Signed on behalf of the Supplier:



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Dr Stuart Wainwright

Chief Executive, UK Centre for Ecology & Hydrology

Date: 21 August 2023

² <https://ghgprotocol.org/corporate-standard>

³ <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

⁴ <https://gov.wales/public-sector-net-zero-reporting-guide>

⁵ Available from: <https://www.gov.uk/government/statistics/uks-carbon-footprint>