

# Carbon Reduction Plan

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

Publication date: 3<sup>rd</sup> September 2024

## 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. A baseline year of 2021 has been calculated; however, the organisation acknowledges this is not truly representative given the restriction to much travel and core business activities due to the residual impacts of Covid-19. We will review whether it is appropriate to set a more representative baseline year in future.

<b>Baseline Year: 2021</b>	
<b>Additional Details relating to the Baseline Emissions calculations.</b>	
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.	
<b>Baseline year emissions:</b>	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
<b>Scope 1</b>	<b>849.89</b> - Direct emissions from buildings, fuel use and fleet vehicles

<b>Scope 2</b>	<b>471.81</b> - Emissions from purchased electricity
<b>Scope 3 (Included Sources)</b>	<b>669.39</b> <b>This figure includes the following categories:</b> 428.32 - Employee Commuting 88.32 - Upstream Transportation and Distribution 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
<b>Total Emissions</b>	<b>1991.09</b>

## Current Emissions Reporting

Reporting Year: 2023	
EMISSIONS	TOTAL (tCO <sub>2</sub> e)
<b>Scope 1</b>	<b>823.99</b>
<b>Scope 2</b>	<b>0.59 (market based)</b> <b>665.09 (standard factors)</b>
<b>Scope 3 (Included Sources)</b>	<b>1566.21</b> <b>This figure includes the following categories:</b> 678.57 - Employee Commuting 27.29 - Upstream Transportation and Distribution 797.80 - Business Travel 57.54 - Electricity Transmission and Distribution 3.41 - Waste generated in operations 1.60 - Water supply and wastewater treatment 0.00 - Downstream Transportation and Distribution
<b>Total Emissions</b>	<b>2390.79 (market based factors)</b> <b>3055.29 (standard factors)</b>

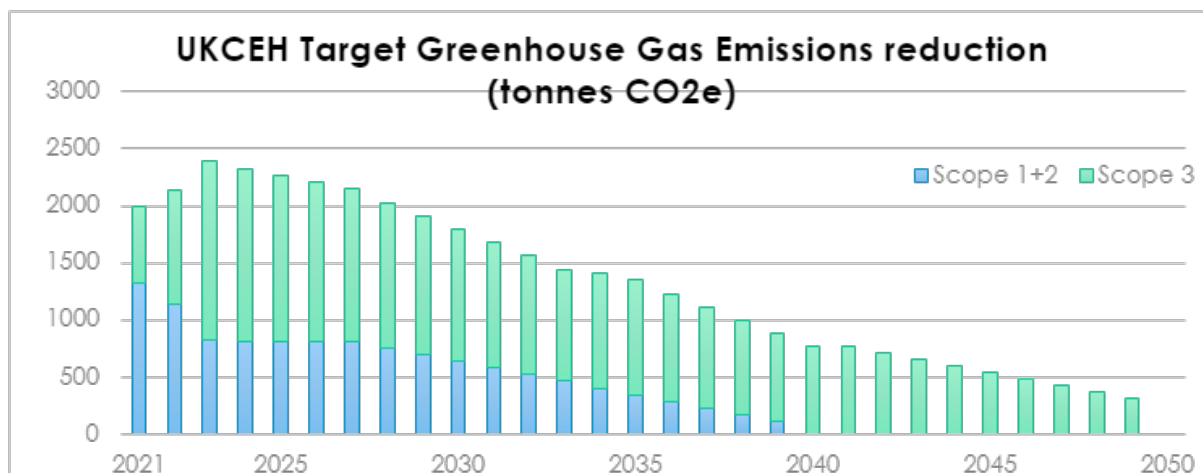
## Emissions reduction targets

In order to continue our progress to achieving Net Zero, we have adopted the following carbon reduction target which was updated in 2023.

*'Reduce UKCEH reliance on fossil fuels and achieve 'Net Zero' Scope 1 and Scope 2 greenhouse gas emissions by 2040 and associated Scope 3 emissions by 2050.'*

As part of this commitment we are making progress towards our net zero implementation plan and undertook cross-site infrastructure decarbonisation surveys to help inform this in 2023. We recognise that emissions increased in 2023 due to the expansion of our workforce and continuing resumption of our business activities and scientific research projects across the globe. However, we did not ship out any equipment to customers in 2023, hence the Downstream T&D emissions calculation at 0.0 tCO<sub>2</sub>e.

We project that market based Scope 1 & Scope 2 carbon emissions will decrease over the next five years to 761 tCO<sub>2</sub>e by 2028. This is a reduction of 42% 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 2023:

- Appointed 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.
- Moved to a 'zero carbon' REFO backed renewable electricity tariff for all UKCEH field sites directly purchasing mains electricity.
- 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.
- Developed a sustainable business travel hierarchy prioritising consideration of travel need/virtual first and consideration of low carbon alternatives.
- Achievement of the Laboratory Efficiency Assessment Framework Gold certification in our Lancaster Chemistry, Wallingford Chiltern Wing and Edinburgh laboratories and Silver certification in our Bangor laboratories.
- Held Sustainable Digital Infrastructure workshops with key internal stakeholders.

Some initiatives initially identified for 2023 implementation were unavoidably delayed.

From 2024 we plan to progress measures to reduce reliance on fossil fuels including through:

- Progressing with delayed upgrades to our site sub-metering and Building Management Systems to better identify energy reduction opportunities on our main sites
- Implementing the Laboratory Efficiency Assessment Framework across all remaining laboratories on our main sites to Gold Standard.
- Reviewing the feasibility of installing further on-site renewable energy generation infrastructure on our main sites.
- Moving to increased use of electric and ULEV vehicles for business travel requirements, where appropriate to do so.

- Engaging our key suppliers to identify opportunities to reduce carbon emissions associated with procurement decisions.
- Working collaboratively with our neighbours & landlords to identify collaborative opportunities.
- Undertaking a staff commuting survey to improve accuracy of footprint calculations and identify opportunities to encourage use of lower carbon transport for commuting purposes.
- Working with our Travel Management Company to improve available information for travel bookers regarding lower carbon travel options.

## 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 standard<sup>1</sup> and uses the appropriate Government emission conversion factors for greenhouse gas company reporting<sup>2</sup>.

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. Upstream (Category 4) Transport and Distribution emissions have been calculated using spend based emissions factors. Public Transport and Employee Commuting have been calculated using the GHG Protocol<sup>1</sup> methodology and 2023 UK government conversion factors<sup>2</sup>.

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:



**Dr Stuart Wainwright OBE**

**Chief Executive, UK Centre for Ecology & Hydrology**

Date: 3<sup>rd</sup> September 2024

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<sup>1</sup><https://ghgprotocol.org/corporate-standard>

<sup>2</sup><https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>