

# Carbon Reduction Plan

Supplier name: British Geological Survey (BGS)

Publication date: September 2022

## Commitment to achieving Net Zero

The British Geological Survey, as part of UKRI, committed to achieving Net Zero emissions by 2040. BGS aim to achieve net-zero carbon for our directly managed estates and research in line with the UKRI commitment. By 2040, we will have substantially raised our standard for environmental sustainability, and we will have fully embedded it in our science strategy and estate management; we plan to work beyond compliance.

Our research, focusing on decarbonisation and resource management, environmental change adaptation and resilience, and multihazards and resilience, enables us to understand how our planet is changing and to contribute solutions and adaptive responses. We acknowledge, however, that the research we undertake and how we support it has its own impact on the environment. BGS also collaborates with other organisations in the UK and internationally and we will actively support our and their environmental sustainability agendas and encourage them to share our values.

## 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. BGS has operated an environmental management system certified to ISO 14001 since 2005, achieving reductions to resource and enabling the effective implementation of policy and procedures.

<b>Baseline Year: FY2017/2018</b>	
<b>Baseline year emissions:</b>	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
<b>Scope 1</b>	2,093.04 -Direct emissions from buildings, fuel use and fleet vehicles

<b>Scope 2</b>	1,855.95 -direct emissions from purchased electricity
<b>Scope 3</b> (Included Sources)	1,815.94 total tCO <sub>2</sub> e Business travel- 746.78 tCO <sub>2</sub> e waste generated in operations- 14.10 tCO <sub>2</sub> e employee commuting- 881.5 tCO <sub>2</sub> e upstream transportation and distribution, and downstream transportation and distribution- 0 (this was not measured during the baseline year).
<b>Total Emissions</b>	5,764.9 tCO <sub>2</sub> e

## Current Emissions Reporting

Reporting Year: FY2021/2022	
<b>EMISSIONS</b>	<b>TOTAL (tCO<sub>2</sub>e)</b>
<b>Scope 1</b>	1,208.94
<b>Scope 2</b>	1,017.53
<b>Scope 3</b> (Included Sources)	193.6 total tCO <sub>2</sub> e Business travel- 167.81 tCO <sub>2</sub> e waste generated in operations- 25.79 tCO <sub>2</sub> e employee commuting- 0, this has not been measured post pandemic. Currently trialling a hybrid working system at all sites. A survey of employee commutes will be circulated before the end of the FY. upstream transportation and distribution, and downstream transportation and distribution- 0 (this has not been measured to date, it is going to be measured over the remaining financial year).
<b>Total Emissions</b>	2,420.07 tCO <sub>2</sub> e

## Emissions reduction targets

To meet our Net Zero by 2040 target, we have adopted the following interim carbon reduction targets:

- 40% emission reduction by 2024-2025
- 70% emission reduction by 2034-2035

We project that carbon emissions will continue to decrease over the coming years, the current reporting year of 21/22 present significantly lower emission figures than the baseline year due to the COVID-19 pandemic. As business operations return to pre-pandemic levels, further specific reduction targets will be set for financial year 23/24.

## Reduction Projects

### Completed Carbon Reduction Initiatives

- Since the 2017/18 baseline, at BGS headquarters site, have implemented several carbon reduction projects including the installation of a large solar array, saving 306 tCO<sub>2</sub>e/year. A further large-scale solar project has been installed in the front car park, with savings of 155 tCO<sub>2</sub>e. We have also installed an Air Source Heat Pump, taking 3 of our buildings off gas, with carbon savings of 295.8 tCO<sub>2</sub>e/year.
- Highly efficient windows have been installed on 2 of our workshop buildings on site, these replace old, blown inefficient ones.
- On-going replacement of building lighting with LEDs/PIR lighting controls.
- Installation of sub metering across our main site which allows for close and accurate monitoring and measuring of energy consumption per building, in turn, provides data to drive behaviour change to reduce carbon emissions.
- We have acted to reduce business travel emissions through a carbon accounting methodology. We capture emissions for all BGS air travel, monitoring the data to in turn inform travel planning and raise awareness to staff.
- With regards to fleet vehicles, we have future plans to purchase electric fleet vehicles, this is dependent on advances in technology due to having specific requirements (including the mileage range) for our business activities.

From 2022 we plan to implement further measures to reduce reliance of fossil fuels such as:

- Detailed feasibility studies/designs to decarbonise our smaller observatory sites.
- Installation of additional electric car charging points at the Keyworth site
- At our head office site, installing additional heat pumps both ground source and air source to further decarbonise heating. Fabrication upgrades are also planned to include insulation and building controls.
- Further upgrades to our sub-metering and Building Management System
- Continue to progress through the Laboratory Efficiency Framework criteria across the laboratories on our main sites.
- Closer work with our key stakeholders to ensure carbon emissions are continuously being reduced

## 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<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<sup>3</sup>.

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

This Carbon Reduction Plan has been reviewed and endorsed by the British Geological Survey's director.

  
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Karen Hanghøj

Date: 27<sup>th</sup> September 2022

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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>

<sup>3</sup><https://ghgprotocol.org/standards/scope-3-standard>