



Net Zero Action Plan

Dynamic Earth

Date: 23/03/26

**TOTAL
EMISSIONS**

543 tCO₂e

**NET ZERO
BY**

2045

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Introduction

Dynamic Earth is Edinburgh's world-class Science Centre and Planetarium, telling the epic story of planet earth "from beginning to mend".

The iconic Dynamic Earth building, in the shadow of the notable geology of Arthur's Seat, was completed in 1999. It comprises a large open-plan top-deck and two floors of interactive gallery experiences. This includes a gift-shop, café, planetarium, learning spaces and underground car park. We are also a contemporary events venue, able to host a large variety of events from small meetings to gala dinners and weddings.

Our journey towards Net Zero has already begun but there is much work still to do. As a Science Centre, we are well aware of the need to rapidly transition away from the use of fossil fuels. The age of our building and 'tent-like' roof design present particular challenges in this regard. In 2021 we made the SME Climate Commitment to reduce our emissions but have thus far failed to meet our reporting requirements as part of this commitment.

To help us meet these challenges, our Green Committee was re-formed in October 2024. The Committee's role is to, as accurately as possible, determine our carbon footprint, provide an achievable action plan and produce a policy framework that will allow us to achieve our stated goals and commitments.

Vision

FOREWORD

Our vision is to actively seek to reduce and ultimately eliminate our carbon footprint by embedding sustainability at the heart of everything we do. We are dedicated to engaging all stakeholders in this journey and aim to empower all to take meaningful action for the planet, ensuring that the story of Earth continues to be one of regeneration, balance, and hope.

Dynamic Earth has a particular focus on Earth and space science. As such, there is an additional pressure on us, not only to meet the challenges of the day but to be boldly leading the way. There is no time to lose.

Summary

NET ZERO

Our commitment is twofold. First, to reach 50% of our FY 2019-2020 Scope 1 & 2 emissions by 2030. This is in line with our commitment to the SME Climate Hub and also within the target set by the SBTI for SMEs. Second, to reach Net Zero by 2045. We will also seek to minimise our Scope 3 emissions wherever possible. Our strategy follows the principles of the Greenhouse Gas Protocol.

Our baseline Scope 1 & 2 emissions were calculated as 750 tCO₂e for FY 2019-2020 and our 2024-2025 footprint is 543 tCO₂e. This includes Scope 1, Scope 2 and what is reasonable/relevant of Scope 3.

In FY 2024-2025 our Scope 1 emissions accounted for 52%, Scope 2 accounted for 36% and Scope 3 accounted for 12% of the total.



Our net zero lead is **Dr Alastair Bruce, Planetarium Manager**. This strategy document will be updated yearly to reflect the action and progress made.

Emissions Boundary

Emissions Boundary for FY 2024-2025 Carbon Footprint

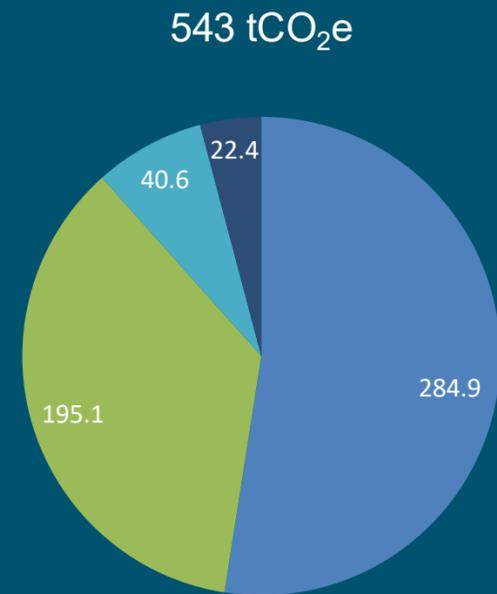
Our operational boundary has been created in line with the principles of the Greenhouse Gas Protocol. We have included Scope 1 and 2 emission sources and have chosen what is “reasonable” and “relevant” from Scope 3.

Our boundary will be reviewed and reset in year **2027** to include more emission sources. This is explored more in the ‘Action’ section of this document.

APPLICABLE AND INCLUDED	NOT INCLUDED
<p align="center">Scope 1 – natural gas <i>(actual consumption)</i></p>	<p align="center">Scope 3 – visitor travel <i>(Insufficient data available)</i></p>
<p align="center">Scope 1 – refrigerant losses <i>(estimate based on reports)</i></p>	<p align="center">Scope 3 - upstream emissions due to purchased goods/services <i>(further research required, staff time availability)</i></p>
<p align="center">Scope 1 - fleet, equipment <i>(actual & estimates)</i></p>	<p align="center">Scope 3 – downstream emissions due to gift shop products <i>(further research required, staff time availability)</i></p>
<p align="center">Scope 2 – electricity <i>(actual consumption, green energy certificate)</i></p>	<p align="center">Scope 3 – pensions, banking <i>(further research required, staff time availability)</i></p>
<p align="center">Scope 3 – waste & recycling <i>(actual based on waste/recycling reports)</i></p>	
<p align="center">Scope 3 – business travel <i>(actual based on GBP spend)</i></p>	
<p align="center">Scope 3 – water consumption <i>(based on meter readings, calculator currently shows 0 tCO2e)</i></p>	<p align="center">NOT RELEVANT (e.g. emission sources that do not exist in your organization)</p>
<p align="center">Scope 3 – commuting, home working <i>(estimate based on staff travel survey)</i></p>	

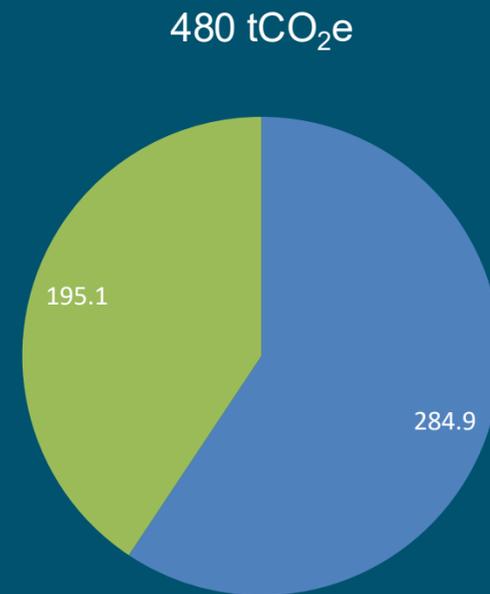
Carbon footprint FY 2024-2025

Footprint(s) constructed using Ecometrica



■ Scope 1 ■ Scope 2 ■ Commuting ■ Other Scope 3

Total footprint



■ Scope 1 ■ Scope 2

Scope 1 and 2

The footprint shows that natural gas consumption constitutes the highest portion of our carbon footprint at 52% with electricity consumption (36%) and staff commuting (7.5%) representing the two next largest contributors.

Scope 1 and 2: **480** tCO₂e

Overall Footprint: **543** tCO₂e

By metric Carbon Footprint: **4.9** tCO₂e per *staff member*

Net Zero Targets

To reach Net Zero by 2045 we have to set several nearer-term targets.

LONG-TERM TARGET:

Net Zero by 2045

SHORT-TERM TARGET:

50% reduction in emissions by 2030 (Scope 1 & 2) relative to FY 2019-2020

YEARLY REDUCTION TARGET:

An absolute total reduction of at least 20 tCO₂e, with a targeted 4% reduction in electricity & gas consumption

Carbon Reduction Action

Our 2019-2020 baseline indicates our Scope 1 & 2 emissions are 750 tCO₂e. Our 2024-2025 footprint indicates our Scope 1 & 2 emissions are 480 tCO₂e. To reduce our Scope 1 & 2 emissions by 50% relative to 2019-2020, we need to reduce our emissions by a further 105 tCO₂e by 2030.

The 2024-2025 footprint shows that natural gas consumption constitutes the highest portion of our carbon footprint at 52% with electricity consumption (36%) and staff commuting (7.5%) representing the two next largest contributors.

We have segmented our actions into 6 main categories. They cover:

- **Scope 1** Natural gas
- **Scope 1** Fleet, Equipment
- **Scope 2** Electricity
- **Scope 3** Waste & Recycling
- **Scope 3** Commuting & Business Travel
- **Scope 3** Water Consumption

OVERVIEW OF PLANNED ACTIONS AND OUTCOMES:

- Repair power factor correction equipment
- Develop comprehensive Sustainability Policy, including supplier/contract review
- Improve data collection and reporting pipeline
- Reduce electricity/gas consumption
- Explore all options relating to electrification

Year 1

Carbon Reduction Action Plans

SCOPE 1: NATURAL GAS

Target: Reduce natural gas consumption by **4%** from **1,550,240 kWh** to **1,488,230 kWh**.

ACTION	DEADLINE	WHO IS RESPONSIBLE?
Boiler service and maintenance	January 2026	Building Services
BMS optimisation (timings, temp set-points etc.)	September 2026	Building Services
Install draft excluders on top deck & ice gallery	September 2026	Building Services

Year 1

Carbon Reduction Action Plans

SCOPE 1: FLEET, EQUIPMENT

ACTION	DEADLINE	WHO IS RESPONSIBLE?
Improve reporting/data collection	May 2026	Green Committee
Electric replacement for leaf blower	September 2026	Green Committee
Removal of Maintenance van	September 2026	Building Services

Year 1

Carbon Reduction Action Plans

SCOPE 2: ELECTRICITY

Target: Reduce electricity consumption by **4%** from **973,061 kWh** to **934,139 kWh**.

ACTION	DEADLINE	WHO IS RESPONSIBLE?
Repair power factor equipment	September 2026	Building Services
Obtain 30-min cadence utility data for review	May 2026	Green Committee
Internal comms/procedures to improve efficiency	September 2026	Green Committee
BMS optimisation (timings, temp. set-points etc.)	September 2026	Building Services
Gallery LED spotlight replacement begins	September 2026	Technical Team

Year 1

Carbon Reduction Action Plans

SCOPE 3: WASTE & RECYCLING

ACTION	DEADLINE	WHO IS RESPONSIBLE?
Improve reporting/data collection	May 2026	Green Committee
Staff training/awareness to maximise recyclables	September 2026	Green Committee
Install updated public/staff signage at bins	September 2026	Green Committee

Year 1

Carbon Reduction Action Plans

SCOPE 3: COMMUTING & BUSINESS TRAVEL

Target: Increase sustainable transport fraction (commuting) from **74%** to **80%**

ACTION	DEADLINE	WHO IS RESPONSIBLE?
Ban on taking UK domestic flights (where a sustainable alternative is available)	April 2026	Leadership Team
Internal comms to encourage sustainable transport	April 2026	Green Committee
Conduct updated staff travel survey	April 2026	Green Committee
Improve reporting/data collection	May 2026	Green Committee
Explore salary sacrifice EV scheme	September 2026	Finance Team

Year 1

Carbon Reduction Action Plans

SCOPE 3: WATER CONSUMPTION

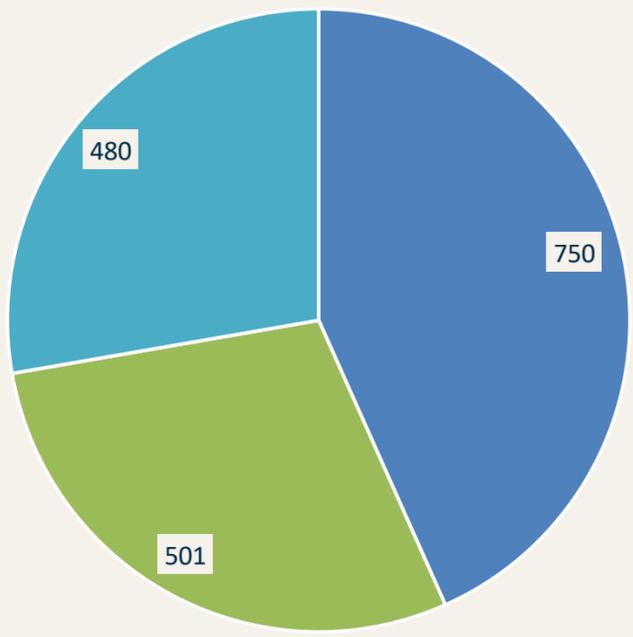
ACTION	DEADLINE	WHO IS RESPONSIBLE?
Low-flow taps installed wherever possible	September 2026	Building Services
Explore options for staff mains water dispenser	September 2026	Building Services
Improve reporting/data collection	May 2026	Green Committee
Cistern ballast to minimise losses	September 2026	Building Services

Longer Term Action Timeline

ACTION	DATE
Develop comprehensive Sustainability Policy, including procurement and contract review policies	December 2026
Refrigeration & water consumption review/audit	December 2026
Increase LED fraction to ~85%	December 2026
Workable timeline in place for complete phase-out of gas boiler use	2027
Workable timeline in place for complete roof redesign/refurbishment	2027
Widen scope 3 coverage to include estimates for purchased goods & services and visitor travel (boundary/target review)	2027
Secure EV Learning Van	2028

Progress to Date

Scope 1 & 2 emissions tCO₂e



■ 2019-2020 ■ 2023-2024 ■ 2024-2025

1st key win

- Electricity consumption now 57% of 2019-2020 value

2nd key win

- Gas consumption now 81% of 2019-2020 value

3rd key win

- Sustainable commuting fraction 74%

Wider sustainability initiatives

Energy:

- Installation of destratification fan in main top-deck space
- Auto power on/off implemented for some lighting/screens
- LED fraction for lighting now ~70%
- BES energy efficiency assessment completed July 2025
- Discussions ongoing with local stakeholders re. district heating possibilities

Staff Wellbeing:

- Implemented Cycle 2 Work Scheme

Circular Economy:

- Discontinued bottled water deliveries
- Switched to net-zero printer paper
- Changed water supplier to one with carbon offsetting scheme
- Switchover to Change Waste to handle our waste/recycling
- Plastic takeaway cutlery replaced with wooden alternatives

Declaration

This Carbon Reduction Plan has been reviewed and signed off by the Chief Executive and Senior Leadership Team.

Name: Anastasia Rocke – Interim CEO; Corporate Services Director

Date: 23/03/26

Signature:

A handwritten signature in black ink, appearing to read 'Anastasia Rocke', is displayed on a white rectangular background.

Close and thank you

Many thanks to the Dynamic Earth Green Committee as well as the Leadership, Finance, Technical and Maintenance Teams. Thanks also to the Edinburgh Climate Change Institute and the team at Ecometrica for all their help this year.

Dynamic Earth Charitable Trust (known as Dynamic Earth) is a registered Scottish Charity, SC020363, regulated by the Scottish Charity Regulator (OSCR).

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