

Verification statement

To the stakeholders of University of Manchester

EcoAct was engaged by the University of Manchester at The University of Manchester, Oxford Road Manchester, M13 9PL to provide independent third-party verification of its direct (Scope 1) and indirect (Scope 2 and selected Scope 3) greenhouse gas emissions as detailed in the company's carbon footprint calculation for the period 01/08/2022 to 31/07/2023.

Objective & responsibilities

The objective of this verification was to confirm whether the GHG statements as reported in University of Manchester's *UoM Carbon data 2015-2023 (updated on 6 Dec 2023)*, *UoM Waste Aug22 to Jul23 (EFs check)15122023*, *Energy & water emissions 22-23_to EcoAct_061023* and *UoM Cat 3 Pre-audit* files were fairly stated and free from material error or omission in accordance with the criteria outlined below.

University of Manchester are responsible for the organisation's emissions sources and GHG related information as well as the development and maintenance of records and procedures in accordance with its reporting requirements. The EcoAct verification team's responsibility is to express an independent verification opinion on the accuracy of the GHG emissions reported by University of Manchester and supporting processes and procedures in place to aggregate and analyse data.

Level of Verification and Materiality

A limited level of verification, aligned with the ISO 14064-3:2019 standard with specification and guidance for the verification and validation of greenhouse gas statements, was conducted.

The organisational boundary of University of Manchester was established as including its operation sites in FY23. University of Manchester uses the operational control approach for the consolidation of its emissions totals. The verification team reviewed the source data from University of Manchester's GHG Emissions report, to identify emissions sources material to the carbon footprint.

Criteria

University of Manchester's GHG Emissions for FY23 was calculated using the following methodologies:

- Calculation methodology: World Resources Institute/World Business Council for Sustainable Development Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard, Revised Edition (the GHG Protocol);
- Reference methodologies: UK Government Conversion Factors for greenhouse gas (GHG) reporting 2022 and 2023 (BEIS – Department for Business, Energy & Industries Strategy)

Verification Opinion

Based on the data and information provided by University of Manchester and the processes and procedures followed, nothing has come to EcoAct's attention to indicate that the following GHG emissions totals are not fairly stated and free from material error:

UoM carbon emissions sources	FY23 emissions (tCO ₂ e)
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Scope 1 Emissions ^{1,2}	32,990
Scope 2 Emissions (location-based)	18,056
Total (location-based)	51,046
Scope 3 CAT 1 – Water	132
Scope 3 CAT 3 – Well-to-tank fuels and electricity ³	11,543
Scope 3 CAT 5 – Waste (<i>calculated by Greenstone</i>) ⁴	65
Total tCO₂e scope 1,2 and 3 (location-based)	62,786

Description of activities

In accordance with the Limited Verification requirement, EcoAct selected and verified sufficient and appropriate evidence, data and calculations to form the basis of our verification opinion. Selected data for verification included: Scope 1 emissions (combustion of fuels and natural gas), Scope 2 emissions (electricity) and Scope 3 emissions (please refer to the table above for the full list of verified Scope 3 categories)

The verification of University of Manchester’s emissions related information was conducted through the review of selected primary evidence and the testing of its emissions calculations. We have also had regular interactions with the key contact person involved in data gathering and reporting to discuss systems, processes and methodologies used to compile the GHG report for FY23.

Amendments to the carbon footprint calculation, to correct data discrepancies, were made during the verification process by the University of Manchester team prior to the finalization of the GHG emissions totals.

Recommendations

University of Manchester should:

- Consider updating emission factors to most recent figures for accurate calculations.
- To improve transparency, develop a comprehensive GHG summary document, clearly outlining calculation methodologies, assumptions, and emissions across Scope 1, 2 and 3.
- Come to a consensus on who is responsible for waste calculations.
- Incorporate the calculation of emissions from refrigerant usage.
- Consider calculating market-based and location-based emissions when sourcing renewable electricity.
- Suggest using previous year’s oil consumption as a proxy for current reporting period.

Further detailed findings and recommendations about University of Manchester’s emissions data have been made to the University of Manchester throughout the verification.

¹ Scope 1 - Refrigerant emissions were excluded from the scope of the verification.

² Scope 1 - Gas oil emissions were excluded from the scope of the verification.

³ Scope 3 CAT 3 - Gas oil emissions were excluded from verification. Total CAT 3 emissions including unverified gas oil emissions was 11,588 tCO₂e.

⁴ Scope 3 CAT 5 - Out of 2,922 tonnes of waste 21% was verified due to data completeness and data availability.

Approved by:

Garin Tivey

Principle Consultant

EcoAct

London, 19th December 2023

Verified by:

Madeleine Strangh

Consultant

Ummar Kasujee

Consultant

Statement of Independence

EcoAct is an independent carbon management company. Our team has extensive experience in the verification of carbon data, information, systems and processes. The data required for the greenhouse gas calculations described herein were compiled by University of Manchester. No member of the EcoAct team has a business relationship with University of Manchester, its Directors or Managers beyond that required of this assignment. To our knowledge there has been no conflict of interest.