

Edinburgh Airport Qualifying Explanatory Statement (QES) 2023

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1. Introduction

The British Standards Institution’s Publicly Available Specification for Carbon Neutrality, PAS 2060, requires that an entity declaring carbon neutrality must make a qualifying explanatory statement (QES) to evidence and substantiate the declaration. This document forms the QES that demonstrates Edinburgh Airport Limited’s commitment to achieving carbon neutrality, substantiating the declaration under PAS 2060. All information in this document is believed to be correct at the time of issue. Should any information come to light that would affect the validity of the statements in this QES, this document will be updated accordingly to update any carbon neutral statement made by Edinburgh Airport.

2. General Information

General information relating to this statement is outlined in Table 1.

Table 1 General Information of QES

Information Required Under PAS 2060 Guidance	Edinburgh Airport Response
Individual responsible for the evaluation and provision of data necessary for the substantiation of the declaration	Morven Sneddon Senior Carbon Manager
Entity responsible for making the declaration	Edinburgh Airport Ltd.
Subject of PAS 2060 declaration	The Scope 1 and 2 operational emissions of Edinburgh Airport Ltd.
Rational for the selection of the subject	The scope and subject of this PAS 2060 includes all emissions based on the operational control principle defined in the World Business Council for Sustainable Development (WBCSD) and World Resources Institute (WRI) Greenhouse Gas Protocol Standard for Corporate Accounting and Reporting
Type of conformity assessment that has been undertaken	Self-certification
Application period	01/01/2023 – 31/12/2023
Commitment period	01/01/2024 – 31/12/2024
Senior representative signature	
Name and position	Gordon Dewar, Chief Executive
Date	March 2024

3. Declaration of Achievement of Carbon Neutrality

Table 2 demonstrates that Edinburgh Airport has met the requirements under PAS 2060 to declare itself as carbon neutral for 1st January to 31st December 2023 and have offset residual scope 1 and scope 2 emissions. Details of the carbon offsets purchased can be found in Appendix 4. Note that this declaration only applies to the scope and boundary of the subject, and period indicated, and should Edinburgh Airport intent to extend its claim then future offsetting will be required.

A Carbon Management Plan (CMP) has been developed to reduce carbon emissions within Edinburgh Airport’s scope and boundary (summarised in Appendix 3). The CMP demonstrates the efforts made

by Edinburgh Airport to reduce its emission in line with achieving Net Zero by 2030 for scope 1 & 2 emissions, and 2040 for scope 3 emissions excluding aircraft climb, cruise, and descent (CCD) and 2045 for scope 3 emissions including CCD.

Additional efforts will be undertaken to address any remaining scope 3 emissions (for which the airport has no direct influence over) that arise within the operational boundary of the airport. More details of Edinburgh Airport’s scope 3 emissions can be found in Appendix 5.

Table 2 Information Required in QES Under PAS 2060 Guidance

Information Required Under Guidance	Response
Define standard and methodology used to determine its GHG emissions reduction.	Methodology & Appendix 2
Confirm that the methodology used was applied in accordance with its provisions and the principles set out in PAS 2060 were met.	Methodology & Appendix 2
Provide justification for the selection of the methodologies chosen to quantify reductions in the carbon footprint, including all assumptions and calculations made and any assessments of uncertainty. (The methodology employed to quantify reductions shall be the same as that used to quantify the original carbon footprint. Should an alternative methodology be available that would reduce uncertainty and yield more accurate, consistent and reproducible results, then this may be used provided the original carbon footprint is re-quantified to the same methodology, for comparison purposes. Recalculated carbon footprints shall use the most recently available emission factors, ensuring that for purposes of comparison with the original calculation, any change in the factors used is taken into account).	Methodology & Appendix 2
Describe the means by which reductions have been achieved and any applicable assumptions or justifications.	Appendix 3
Describe the actual reductions achieved in absolute and intensity terms and as a percentage of the original carbon footprint. (Quantified GHG emissions reductions shall be expressed in absolute terms and shall relate to the application period selected and/or shall be expressed in emission intensity terms (e.g. per specified unit of product or instance of service)).	Appendix 3
State the baseline/qualification date.	General Information

Provide an explanation for circumstances where a GHG reduction in intensity terms is accompanied by an increase in absolute terms for the determined subject.	Whilst there was a reduction in scope 1 and 2 emissions, scope 3 emissions increase as the business recovered from the impacts of COVID-19
Select and document the standard and methodology used to achieve carbon offset.	Methodology & Appendix 2
Confirm that:	
a) Offsets generated or allowance credits surrendered represent genuine, additional GHG emission reductions elsewhere.	Appendix 4
b) Projects involved in delivering offsets meet the criteria of additionality, permanence, leakage and double counting. (See the WRI Greenhouse Gas Protocol for definitions of additionality, permanence, leakage and double counting).	Appendix 4
c) Carbon offsets are verified by an independent third-party verifier.	Appendix 4
d) Credits from Carbon offset projects are only issued after the emission reduction has taken place.	Appendix 4
e) Credits from Carbon offset projects are retired within 12 months from the date of the declaration of achievement.	Appendix 4
f) Provision for event related option of 36 months to be added here.	Appendix 4
g) Credits from Carbon offset projects are supported by publicly available project documentation on a registry which shall provide information about the offset project, quantification methodology and validation and verification procedures.	Appendix 4
h) Credits from Carbon offset projects are stored and retired in an independent and credible registry.	Appendix 4
Document the quantity of GHG emissions credits and the type and nature of credits actually purchased including the number and type of credits used and the time period over which credits were generated including:	Appendix 4

a) Which GHG emissions have been offset.	Appendix 4
b) The actual amount of carbon offset.	Appendix 4
c) The type of credits and projects involved.	Appendix 4
d) The number and type of carbon credits used and the time period over which the credits have been generated.	Appendix 4
e) For events, a rationale to support any retirement of credits in excess of 12 months including details of any legacy emission savings, considered.	Appendix 4
f) Information regarding the retirement/cancellation of carbon credits to prevent their use by others including a link to the registry or equivalent publicly available record, where the credit has been retired.	Appendix 4
Specify the type of conformity assessment.	General Information
Date the QES and have it signed by the senior representative of the entity concerned (e.g., CEO of a corporation; Divisional Director, where the subject is a division of a larger entity; the Chairman of a town council or the head of the household for a family group).	General Information
Make QES publicly available and provide a reference to any freely accessible information upon which substantiation depends	Completed

3.1 Methodology

Edinburgh Airport's carbon footprint has been calculated in-house, in accordance with the principles of the Greenhouse Gas Protocol Standard for Corporate Accounting and Reporting produced by the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI). This is a globally recognised standard and is best practice for carbon footprint calculation. The carbon emissions were calculated using the UK government DEFRA conversion factors for company reporting, and emissions have been expressed in terms of Carbon Dioxide Equivalent (CO₂e).

The methodology meets the principles set out by PAS 2060 where *'Entities shall confirm and record their application of the methodology selected for quantification of the greenhouse gas emissions from the subject, conforms to those principles'* and is outlined in more detail in Appendix 2.

3.2 Carbon emissions

The total carbon emissions covering operations at Edinburgh Airport for 1st January to 31st December 2023 are 198,570 tCO₂e (market-based methodology and excluding CCD). Edinburgh Airport's carbon emissions sources included are outlined in Appendix 1.

Appendix 1: Carbon Footprint Emissions Sources

The carbon emission sources that have been offset as part of this declaration of carbon neutrality are outlined in Table 3. These emissions are from activities that fall under the airport's scope 1 and scope 2 emissions and are therefore emissions from sources and activities that are owned or controlled by Edinburgh Airport. The remaining scope 3 emissions that the airport does not have direct influence over are detailed in Appendix 5.

Scope 1

- Airport Utilities (natural gas)
- Airport De-Icer (diluted glycol)
- Airport Owned Operational Vehicles (diesel, gas oil, diesel HVO)
- Refrigerant Gases (HFC, R32, R410A)
- Fire Training (diesel, LPG, wood pellets, paper and board, CO₂ fire extinguisher)

Scope 2

- Utilities (Airport electricity use, not including tenant use)

Table 3 Market Based Emissions (tCO₂e) for 2023

Market Based Emissions Category	Emissions (tCO ₂ e)
Scope 1	320
Airport Natural Gas	2
Airport De-Icer	68
Airport Owned Operational Vehicles	80
Refrigerant Gases	130
Fire Training	40
Scope 2	-
Airport electricity	-

Appendix 2: Methodology

Standard and Methodology Used

The quantification, reduction and offsetting of Edinburgh's Airport carbon footprint is in line with the principles of the Greenhouse Gas Protocol Standard for Corporate Accounting and Reporting produced by the WBCSD and the WRI. The GHG Protocol provides requirements and guidance for companies and other organisations calculating their emissions and has been specifically designed to:

- help companies prepare a GHG inventory that represents a true and fair account of their emissions using standardised approaches and principles
- simplify and reduce the costs of compiling an emissions inventory
- provide business with information that can be used to build an effective strategy to manage and reduce emissions
- increase consistency and transparency in GHG accounting and reporting among various companies and GHG programmes.

The UK government conversion factors for company reporting have been utilised in the calculations, and emissions have been expressed in terms of Carbon Dioxide Equivalent (CO₂e).

Justification

The methodology has been chosen since it is a globally recognised standard and is considered best practice for carbon footprint calculation. It offers a robust framework for calculating GHG emissions that has been applied in accordance with its provisions and that the principles set out in PAS 2060 have been met.

Given the increasing regulation surrounding climate change, it is necessary for companies to be able to understand and manage their environmental risks effectively. Especially if they want to ensure long term success in a competitive business environment, not to mention potential future government intervention through climate policy.

All carbon emissions relevant to the subject have been included when determining the carbon footprint. This shows that Edinburgh Airport has demonstrated a true and fair representation of its emissions, therefore meeting the requirements of PAS 2060 and offering an enhanced level of transparency in its carbon footprinting.

Data Quality

Data from directly metered sources was used in the calculation of carbon emissions where available (e.g. electricity, natural gas, water, operational vehicle fuel use), and industry standard methodologies were used where directly metered sources were not available (e.g. landing take-off cycle fuel use was calculated based on ICAO methodology). In all cases, appropriate UK government conversion factors for company reporting were applied to convert fuel use to carbon emissions. This allows for a high confidence in the data.

Appendix 3: Carbon Management Plan

Historical Emission Reduction Progress

Edinburgh Airport has a range of current and ongoing initiatives focused on carbon emission reductions. Within its Carbon Management Plan, the airport highlights that understanding energy consumption and improving energy efficiency provides multiple benefits. As well as reducing carbon emissions and fulfilling cost savings, energy efficiency supports sustainable growth and increases energy security through reducing demand.

Future Emission Reduction Plans

Edinburgh Airport has identified further projects and initiatives that will help to reduce energy usage on campus and in turn reduce carbon emissions. The projects identified in this section showcase some of the projects that have been selected for implementation within the next five years, and specifically highlight areas where energy savings and other carbon reduction measures will be fulfilled following completion of the project.

Terminal LED Lighting

Several back of house areas around the airport campus have fluorescent, filament, and halogen lighting. This lighting is inefficient as it consumes more energy, has a shorter lifespan than LED lighting, and is costlier to run. There is currently a project ongoing which will replace these light fixtures with LEDs across campus. The project is being expanded to include the replacement of 1,966 light fittings (including emergency lights) at international arrivals hall, passenger walkways and storage areas. The existing lighting of these areas consumes approximately 590,600 kWh per year, resulting in a cost of £188,992 per annum. It is projected that the LED lights will consume 201,500 kWh costing £64,992 per annum resulting in savings of 389,100k kWh and £124,000. This project is expected to be complete by the end of 2024.

Street Lighting Upgrade

The existing street lighting at Edinburgh Airport is between 10 and 20 years old, with the majority being of a sodium-based lamp technology. By replacing older assets with new luminaires with a smart control system and presence detection, energy use could reduce by approximately 65%. It is anticipated that the replacement will reduce energy consumption by 50% and a further 15% of energy will be reduced through the installation of a smart control system. This reduction in energy could result in a cost saving of £52,723 per annum.

Car Wash Replacement

Over £450,000 will be invested into the car wash replacement project, which will see the replacement of five car washes, within the Car Rental Centre. The installation work to complete the wastewater recycling for one of the wash bays will see up to 50% of wastewater recycled and repurposed for the next wash cycle. Currently, all water from the wash bay goes to a sewer and 100% fresh water is required for the next cycle. The installation of the new wash bay will help to reduce the need for fresh water by recycling up to 50% of wastewater for the next cycle.

Vehicle Asset Replacement

The Vehicle Asset Replacement strategy will see the replacement of vehicles across campus as many of the existing vehicles are no longer fit-for-purpose. The project includes the replacement of existing

vehicles with two hybrid diesel vehicles for the airside operations department which will result in an annual reduction in carbon emissions of approximately 21,423 kg CO₂e.

EV Coach Chargers

Four of the airside coaches will be replaced with new EV coaches which requires the installation of infrastructure to support new EV chargers for the airside coaches. The replacement coaches will be delivered in a phased approach, with two delivered in June 2023 and two delivered in January 2024. To operate the fully electric coaches, new electric charging units are required. It is estimated that approximately 40,000 kg CO₂e will be removed as a result.

Fire Training Area

One of the projects being invested in is the replacement of fire training apparatus and training equipment to eradicate carbonaceous burning from the campus. This includes the replacement of the fire training rig to allow continued provision of fire-training transition and enhancement of eternal training and the elimination of carbonaceous burning. The carbonaceous fire behaviour unit will be replaced with a new smaller LPG unit, removing the need to use approximately 72-120 litres of diesel per annum equating to 180 – 301 kg CO₂e.

Conformance to the Carbon Management Plan

Edinburgh Airport is working with, and will continue to work, with several partners to deliver the Carbon Management Plan (CMP), including Scottish Enterprise, Zero Waste Scotland, Energy Saving Trust and local businesses and organisations. Working proactively to identify and build partnership opportunities will support with the delivery of the plan.

The CMP details Edinburgh Airport's strategy for reducing carbon emissions over the coming years and sets out a clear timetable with the responsibilities and resources required to deliver net zero. The CMP focusses on the airport's carbon reduction ambitions and states its aspiration to achieve net zero emissions, on scope 1 and 2 emissions, by 2030 and scope 3 emissions by 2040 excluding CCD and by 2045 including CCD.

The main objectives of the CMP are:

- to continue to take a whole business approach so that carbon management is adopted as a key objective in decision making and processes. Key stakeholders will be identified and appointed to ensure that carbon reduction is fully integrated into the organisation's culture.
- to adopt revised targets for the measurable reduction of carbon emissions and to deliver these reductions.

The progress of the CMP will be monitored through the annual carbon footprint (which also includes scope 3 emissions), which will be the primary way of monitoring carbon reduction and performance against targets. The information is obtained through the organisations own records and converted to carbon dioxide equivalent (tCO₂e) using recognised GHG Protocol consistent emission factors. This report is produced by an external consultancy to ensure accuracy and robustness of data.

Monthly monitoring of gas and electricity data will also be used to monitor progress and reporting will be completed in line with the communications strategy.

Data from the carbon footprint will be published in the annual Corporate Responsibility Report which is published on the Edinburgh Airport website and available to all interested stakeholders.

Carbon Reduction Targets

Edinburgh Airport has stated its aspiration to achieve net zero emissions by 2045. However, it also recognises the additional reputational, staff satisfaction and stakeholder engagement benefits achieved through delivering effective carbon management.

Reducing carbon emissions demonstrates the airport's commitment to good carbon management and sustainability and will enable the organisation to act as an exemplar to encourage others. In addition, a commitment to sustainability is increasingly linked to an organisation's reputation with better sustainability credentials and good carbon management enhancing the organisation's reputation.

The organisation's key stakeholders, including staff, elected representatives and the local community, are increasingly focusing on sustainability. The organisation's engagement and enhanced commitment and leadership with this agenda will improve its relationship with these stakeholders. Edinburgh Airport will seek to become an exemplar of good practice and to engage others in making a positive contribution to sustainable development.

Appendix 4: Carbon Offset Strategy

The total emissions to be offset by Edinburgh Airport for 2023 are 625 tCO₂e (see Table 4).

Table 4 Emissions to be Offset

Scope	Description	Total (tCO ₂ e)
Location Based Emissions		
1	Direct emissions (consumption of fuel, airport owned transport, fugitive emissions) arising from operational control at Edinburgh Airport	2,383
2	Emissions arising from the consumption of electricity at Edinburgh Airport	3,379
Total		5,762
Market Based Emissions		
1	Gas procured through a green tariff	320
2	Renewable energy purchased and verified by the Renewable Energy Guarantee of Origin Certificate (REGO)	0
Total		320
3	Business Travel	305
Offset Total (Market Based Emissions & Business Travel)		625

Verified Carbon Scheme by Verra

Mataven Jungle Indigenous Guardianship Project

Number of credits: 625 verified emission reductions

Retirement date: May 2024

Link to credits: <https://onetribe.com/mataven-jungle-indigenous-guardianship-project/>

Commitment To Carbon Neutrality

Edinburgh Airport commits to monitoring, reducing, and declaring all its carbon equivalent emissions for the commitment period. Edinburgh Airport will subsequently offset the declared emissions using a genuine source of carbon credits.

Appendix 5: Scope 3 Emissions

Table 5 outlines a list of all the carbon emissions sources that make up the scope 3 emissions which are those emissions that the airport does not have direct influence over.

Scope 3 Emissions

- Aircraft Movements (aviation turbine fuel)
- Passenger Surface Access (car, bus, taxi, light rail and tram)
- Employee Commute (car, bus, light rail and tram)
- Employee Homeworking
- Waste (disposal and material use)
- Electricity Transmission and Distribution and Well-to-tank
- Fuels and Bioenergy Well-to-tank
- Third Party De-Icer (undiluted and diluted glycol)
- Third Party Operational Vehicles (diesel, gas oil, diesel HVO)
- Water (usage and sewage)
- Aircraft Engine Testing (aviation turbine fuel)
- Tenant Natural Gas
- Business Travel (flights, taxis, bus, rail)

Table 5 Scope 3 Emissions (excluding aircraft movements)

Market Based Emissions Category	Emissions (tCO ₂ e)
Scope 3	172,078
Aircraft movements	132,949
Passenger surface access	28,791
Procurement (Purchased Goods & Services)	19,631
Waste	5,497
Fuels & Energy WTT	1,752
Employee commute	1,094
Third party de-icer	614
Electricity Transmission & Distribution	450
Third party operational vehicles	388
Business travel	305
Aircraft engine tests	169
Water	72
Employee homeworking	45
Tenant natural gas	0.2