

Edinburgh Airport Qualifying Explanatory Statement (QES)

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1. Introduction

PAS 2060 requires that an entity making a declaration in respect to carbon neutrality in accordance with its provisions, make a qualifying explanatory statement (QES) that includes the evidence substantiating the declaration. This document forms the QES that demonstrates Edinburgh Airport's commitment to achieving carbon neutrality, which includes evidence substantiating the declaration under PAS 2060. All information is believed to be correct at the time of issue. Should any information come to light that would affect the validity of the statements herein, this document will be updated to accurately reflect the current status of any carbon neutral statement made by Edinburgh Airport.

1.1 About Edinburgh Airport

Edinburgh Airport is Scotland's busiest airport, flying to more destinations than any other Scottish airport, Edinburgh Airport works with airlines such as British Airways, Qatar Airways, Turkish Airlines, United, Delta, Jet2, easyJet and Ryanair.

2. General Information

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	Gayle Barclay Senior Environment 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 WBCSD / WRI GHG Protocol – Corporate Standard.
Type of conformity assessment that has been undertaken	Self-certification
Application period	01/01/2021 – 31/12/2021
Commitment period	01/01/2022 – 31/12/2022
Senior representative: Signature	
Name and position	Gordon Dewar, Chief Executive
Date	24/08/2022

3. Declaration of achievement of carbon neutrality

Table 1 demonstrates that Edinburgh Airport has met the requirement to self-assess as carbon neutral under the PAS 2060 specification for 1st January to 31st December 2021, and have offset residual Scope 1 and 2 emissions. Details of the carbon offsets purchased can be found in Appendix 3. 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 has also been set up to target carbon reduction within Edinburgh Airport's scope and boundary (summarised in Appendix 3). The purpose of the plan is to demonstrate the

meaningful efforts made by Edinburgh Airport to reduce its emission in line with their targets and policy statement, and details the route by which they aim to achieve their net zero carbon ambition.

Additional efforts will be undertaken to address any remaining Scope 3 emissions (and for which the airport has no direct influence over) that arise within the operational boundary of the airport. This will be achieved through Level 3+ of the Airport Carbon Accreditation scheme in 2023, and through stakeholder engagement plans. More details can be found in Appendix 5.

3.1 Methodology

Edinburgh Airport’s carbon footprint has been calculated by Ricardo Energy & Environment 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 figures have been calculated using the UK government 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 Scope 1 & 2 emissions covering operations at Edinburgh Airport for 1st January to 31st December 2020 are 6,905 tCO₂e (location-based Scope 2 methodology). The emissions sources included are outlined in Appendix 1.

Table 1: Checklist for QES supporting declaration of achieving carbon neutrality.

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	Methodology & Appendix 2

purposes of comparison with the original calculation, any change in the factors used is taken into account).	
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	Appendix 4

which shall provide information about the offset project, quantification methodology and validation and verification procedures.	
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, taken into account.	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

Appendix 1: Carbon footprint emissions sources

Below is a list of all carbon emissions sources that have been offset as part of this declaration of carbon neutrality. Remaining Scope 3 emissions that the airport does not have direct influence over are detailed in Appendix 5.

Scope 1

- Utilities (Combustion of fuels):
 - Boilers & AHUs (natural gas)
 - Fire suppression (CO₂)
 - Refrigerant gases (e.g. HFC, HCFC, SF6)
- Airport owned transport
 - Operational vehicles (Airport fire trucks, Airport snow fleet, etc.)
 - Non-operational vehicles (Airport pool vehicles, car park buses, airside buses, etc.)
 - Airport owned GPU and air start units..
- On-site fire training (kerosene, LPG, gas oil, wood, etc. burnt in training)
- De-icer used for surface de-icing

Scope 2

- Utilities:
 - Airport electricity use (Not including tenant use)

Emissions source	Scope 1 emissions	Scope 2 emissions (Location-based)	Total emissions (tCO ₂ e)	% of emissions
Utilities	2,693	3,169	5862	85%
Airport operational vehicles	156		156	2%
Refrigerants	379		379	5%
Business travel (fuel purchase)	0.05		0.05	0%
De-icer	498		498	7%
Fire Training	9		9	1%
Total emissions	3,736	3,169	6,905	100%

Appendix 2: Methodology

Standard and methodology used

The quantification, reduction and offsetting of Edinburgh's Airport has been achieved through the calculation of its carbon footprint, which has been calculated 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). The Standard 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 standardized 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 Scope 1 and Scope 2 emissions relevant to the subject have been included when determining the carbon footprint. In addition to this, all Scope 1, 2 and 3 emission sources calculated to be material have been considered in 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 focussed around 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 increasing cost savings, efficiency supports sustainable growth and increases energy security through reducing demand.

Since 2016 Edinburgh Airport has invested £1,068,000 in energy savings projects. This has resulted in savings to date of 4,165,000kWh and £496,000.

As a result of the energy saving programme, the airport has seen a reduction in our scope 2 emissions each year since 2016 despite a 15% increase in passengers numbers and a 30% increase in floor space as a result of the terminal expansion opened in 2018.

Multi-storey Car Park

Between 2016 and 2017 £380,000 was invested to replace traditional lighting in the multi-storey car park with LEDs. Lighting controls were also installed to reduce inefficiencies saving 400,000kWh's per year and resulting in annual savings of £48,000. Capital project works are ongoing to further improve car park lighting efficiency.

Terminal Lighting

In 2017 £390,000 was invested to begin a programme of LED replacement in the terminal building saving 550,000kWh's per year and resulting in annual savings of £66,000. An additional £30,000 was invested in 2018 saving an additional 60,000kWh's per year and resulting in further annual savings of £7,200.

Air Handling Units (AHU)

In 2017 £24,000 was invested to replace AHU's, saving 150,00kWh's per year and resulting in annual savings of £18,000.

Energy Management System/Building Management System

In 2017 £34,000 was invested in the EMS and BMS to improve controls and identify energy saving opportunities, leading to annual savings of 1,200,000kWh's and £144,000.

Stand Lighting

Between 2018 and 2019 £160,00 was invested in upgrading stand lighting to LED's leading to annual savings of 75,000kWh's and £9,000.

Street lighting

In 2017 £50,000 was invested to replace streetlights across the campus with LED's leading to annual savings of 50,000kWh's and £6,000.

Renewable electricity

In April 2018 Edinburgh Airport renewed its electricity contract, as part of this contract renewable 100% of purchased electricity now comes from renewable sources (biomass).

Green gas

In 2020 Edinburgh Airport changed to purchase 100% green gas.

Future emissions reduction plans

Edinburgh Airport has also identified a range of future planned initiatives underpinning its carbon neutral target. The projects identified below are a sample of those that have been selected for implementation within the next five years. These projects have been taken from the latest five-year plan and have already been planned for delivery as an ongoing programme of works.

As the Carbon Management Plan becomes embedded into wider business processes and decision making, additional projects will be added to the list of initiatives and progress reported against on an annual basis.

Low carbon transition

Funding has been awarded by the Scottish Government to introduce low carbon infrastructure. This includes the development of an on-site solar farm and electric vehicle charging infrastructure planned to be operational in Q1 of 2023.

Stand LED Lighting

There is an ongoing improvement programme in place to replace stand lighting with LED's.

Airfield Ground Lighting System

As part of a larger runway resurfacing project due to take place in 2023, runway lights will be replaced with LED's leading to significant energy savings.

TEX Energy Efficiency Improvements

There is an ongoing improvement programme to install energy efficiency technologies to the Terminal Expansion, these include additional meters and replacement of air handling units.

Terminal LED Lighting

The replacement of terminal lighting began in common use areas including the check in hall and departure lounge, the programme is due to continue to additional areas including international arrivals and staff corridor areas.

Vehicle Fleet

In 2018 a review of operational vehicles took place, with three pool cars being replaced with electric vehicles. An ongoing review programme is in place to upgrade operational vehicles as they reach end of life. Electric and hybrid vehicles are prioritised; however, this must also be balanced against operational requirements. Partnership working with organisations such as the Energy Saving Trust allow the airport

to keep ahead of technology developments and continue to build electric vehicles into its fleet replacement programme.

Conformance to the Carbon Management Plan

Edinburgh Airport is working with, and will continue to work, with a number of partners to deliver the Carbon Management Plan, 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 Carbon Management Plan set out by Edinburgh Airport states its aspiration to achieve net zero emissions, on scope 1 and 2 emissions, by 2040. In line with a commitment made in July 2019 through Airport Council International (ACI) Europe and Scottish Government targets.

The CMP additionally focusses on the airport's ambitions for 2040, and a roadmap for progress. Reducing emissions is not just about a commitment to the environment and sustainability. The same processes that are used to identify carbon emissions reduction will also identify and realise financial savings through improved efficiency in the procurement and operation of its buildings and transport.

The CMP details Edinburgh Airport's strategy for reducing carbon emissions over the coming years and sets out a clear timetable as well as identifying the responsibilities and internal resources required to deliver the programme. The main objectives of the plan 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 2040. 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.

A number of studies have identified a correlation between a focus on sustainability and staff satisfaction (particularly where staff are fully involved) and this can lead to improved productivity or morale.

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 so engage others in making a positive contribution to sustainable development.

Appendix 4: Carbon offset strategy

CO₂e emissions to be offset – 2,707 tCO₂e

The carbon credits have been purchased from the following two schemes, and have all been retired:

Scheme 1: UN Clean Development Mechanism

Credits: 2,607 CERs (certified emissions reduction units)

Scheme Name: Project for the reduction of greenhouse gas emissions of Hidroelectrica La Confluencia S.A.

Retirement date: 25th July 2022

Public registry with link to credits: <https://offset.climateneutralnow.org/vchistory>

Scheme 2: Gold Standard

Credits: 100 VERs (verified emissions reduction units)

Scheme Name: Planting Biodiverse Forests in Panama

Retirement date: 23rd August 2022

Public registry with link to credits:

<https://marketplace.goldstandard.org/collections/projects/products/planting-biodiverse-forests-panama>

Commitment to carbon neutrality

Edinburgh Airport will commit to monitor, reduce and declare all of its carbon equivalent emissions for the commitment period 01/01/22 - 31/12/22. Edinburgh Airport will subsequently offset the declared emissions using a genuine source of carbon credits.

Scope	Definition	Total (tCO ₂ e)
1	Direct emissions (consumption of fuel, airport owned transport, fugitive emissions) arising from operational control at Edinburgh Airport	3,736
2	Emissions arising from the consumption of electricity at Edinburgh Airport	3,169
	Location-based Total	6,905
	Credits resulting from the procurement of renewable electricity (REGO certificated)	4,198
	Market-based Total	2,707

Appendix 5: Scope 3 emissions

In preparing the organizational GHG inventory Edinburgh Airport adopted a traditional organisational boundary that includes all Scope 1, 2 and a number of Scope 3 emission sources. The Scope 3 emissions included in the carbon footprint are those required under Level 3/3+ of the Airport Carbon Accreditation (ACA) scheme plus some additional emissions sources including: water and waste water treatment, tenant energy, and electricity Well-To-Tank (WTT) and Transmission and Distribution (T&D) losses.

Scope 3 emissions have not been included in this declaration of carbon neutrality as it is not cost effective to do so and the airport does not have direct influence over these emissions sources. However, these will be the focus of future efforts for carbon reduction initiatives through stakeholder engagement as the airport aims to achieve net zero carbon emissions by 2040.

This is in line with the requirements level 3+ of the ACA scheme, where all Scope 1 and 2 emissions are required to be offset to achieve carbon neutral status. Edinburgh Airport are aiming to obtain Level 3+ of the ACA scheme in 2023, and as part of this will look to reduce their Scope 3 emissions through stakeholder engagement activities that incentivise the reduction of Scope 3 emissions over which the airport do not have direct influence.

The Scope 3 emissions that are included in Edinburgh Airport’s carbon footprint, and will be the focus of future carbon reduction schemes, are as follows:

Scope 3

- Aircraft
 - Aircraft LTO (aircraft arriving, departing and taxiing – up to 3,000ft / 1,000m)
 - Aircraft APU usage
 - Aircraft engine testing
- Utilities
 - Water & wastewater treatment
 - Tenants & concessionaries electricity and natural gas (on airport supply)
 - Electricity WTT and T&D losses
- Transport-related activities
 - 3rd party operational vehicle fuel use
 - Passenger surface access
 - Staff & tenant commuting
- Waste virgin material production, disposal & recycling

Emissions source	Scope 3 emissions (Location-based)
Aircraft movements & APU usage	49,167
Aircraft engine testing	2
Utilities	934
Electricity T&D & WTT (Gen, T&D)	1,523
Third party de-icer	198
Third party operational vehicles	141
Water	37

Passenger surface access	2,443
Staff and tenant commute	3,521
Business travel	4
Waste	1,750
Total Scope 3 emissions	59,720