

Greenhouse Gas Emissions Report 2021/22



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1. Introduction

Birmingham Airport is an international airport located eight miles to the east of Birmingham city centre in the West Midlands region of the United Kingdom. The Airport is jointly owned by the seven Metropolitan Boroughs of the West Midlands and private investors led by Ontario Teachers' Pension Plan.

Pre-COVID, the airport welcomed 12.5 million passengers annually, servicing around 50 airlines to directly connect with more than 150 destinations.

Birmingham Airport is committed to becoming a Net Zero carbon Airport by 2033, prioritising zero carbon Airport operations and minimising carbon offsets. Having first announced our ambition in 2019, we remain steadfast in achieving our 2033 target despite the impact of the pandemic. In April 2022, we launched our Net Zero Carbon Plan, which sets out our roadmap to 2033, building on a decade of learning and investments that have already delivered a reduction in emissions that the airport directly controls.

Birmingham Airport has a critical role to play in co-ordinating internal and external stakeholders' collective efforts to use energy more efficiently, and in moving towards lower carbon operations. This involves both leading by example in how we manage those emission sources that we control, and guiding and influencing others, for example airlines, handling agents, tenants, and concessions, in how they manage the emissions within their control.

This report presents Birmingham Airport's energy use, the associated greenhouse gas (GHG) emissions and calculation methodology for the financial year 2021/22 (01 April 2021 to 31 March 2022). The report covers assurance and a narrative description of the principal measures taken for the purpose of increasing the Airport's energy efficiency during the financial year. Any comments or questions in relation to the report should be directed to Sustainability@birminghamairport.co.uk.

1.1 Streamlined Energy and Carbon Reporting (SECR) Policy

The UK's Streamlined Energy and Carbon Reporting (SECR) policy was implemented on 1st April 2019 under the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations (SI 2018/1155).

Birmingham Airport meets the definition of a 'large unquoted company' under the Companies Act 2006 and is therefore required to produce the following SECR report which includes:

- UK energy use (to include as a minimum purchased electricity, gas and transport).
- The associated greenhouse gas emissions.
- At least one intensity ratio (for Birmingham Airport, passenger numbers are used).
- The previous year figures for energy use and GHG emissions.
- Information about energy efficiency action taken during the reporting period.
- Methodologies used in the calculation of disclosures.

2. Setting the Operational Boundary

In setting the operational boundary and calculating the GHG emissions footprint, Birmingham Airport followed UK Government guidance (HM Government, 2019), the GHG Protocol Corporate Standard (WBCSD/WRI, 2004), GHG Protocol Scope 3 Standard (WBCSD/WRI, 2011) and sector-specific requirements of Airport Carbon Accreditation (ACI, 2020).

Birmingham Airport adopted the 'operational control' approach (WBCSD/WRI, 2004). As such, this report presents energy usage and associated GHG emissions from all Birmingham Airport operations as tonnes of carbon dioxide equivalent (t/CO₂e). To convert raw information on a company's activities into GHG emissions, the Department for Business, Energy and Industrial Strategy (BEIS) provides annually updated conversion factors. The 2021 GHG conversion factors published 02 June 2021 have been applied to this 2021/22 footprint following UK Government guidance (BEIS, 2021).

Birmingham Airport's GHG emissions footprint consists of three emissions 'Scopes'. Scope 1 and 2 emissions form the basis of standard practice and are the minimum requirement for reporting under SECR. Companies are encouraged to go beyond the minimum requirements and voluntarily include any other material source of energy use or GHG emissions, classed as Scope 3, indirect emissions. Birmingham Airport has voluntarily calculated and reported Scope 3 emissions every three years since 2012/13 and will do so on an annual basis from 2021/22.

2.1 Scope 1 Emissions

Scope 1 emissions are direct GHG emissions that occur from sources that are owned or controlled by Birmingham Airport, including:

- Gas consumption (excluding tenant and concession usage)
- LPG consumption
- Fuel consumption (owned and leased fleet)
- Diesel fuel used in generators
- Refrigerants

2.2 Scope 2 Emissions

Scope 2 emissions are indirect GHG emissions associated with the purchase of electricity, steam, heat, or cooling. Although Scope 2 emissions physically occur at the facility where they are generated, they are accounted for in Birmingham Airport's GHG emissions inventory because they are a result of the organisation's energy use. Birmingham Airport includes the following Scope 2 emission sources within the GHG inventory:

- Consumption of purchased electricity (excluding tenant and concession electricity)

2.3 Scope 3 Emissions

Scope 3 emissions are indirect emissions that are a result of operations associated with Birmingham Airport but which occur from sources not owned or controlled by it.

As a minimum, the Airport follows Airport Carbon Accreditation guidance (Level 3) to determine which Scope 3 emission sources to include within the GHG emissions footprint. In addition, the airport reports on Scope 3 emissions from waste management and water use and treatment in line

with other major UK airports and the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (WBCSD/WRI, 2011).

The Airport has included emissions from on-stand power, engine testing and staff surface access for the first time this year. The Airport will continue to assess the Scope 3 emission sources it reports on annually to ensure activities that are important to our stakeholders, activities we can guide and influence and activities with the greatest impact are included within the carbon footprint. The Airport endeavours to continuously improve the calculation methodology to provide an emissions total that is as accurate as is practical.

The Airport reports emissions from the following specific sources:

- Landing & Take-off (LTO) Cycle
- On-stand Power (not previously reported)
- Engine Testing (not previously reported)
- Passenger Surface Access
- Staff Surface Access (not previously reported)
- Business Travel – Air
- Business Travel – Train
- Business Travel – Car (SECR requirement)
- Business Travel – Taxi
- Waste Management
- Water Use and Treatment
- Electricity Transmission and Distribution
- Third-party Ground Service Equipment (GSE)
- Tenant and Concession – Gas
- Tenant and Concession - Electricity

3. Methodology

Scope	Emission Source	Description	Department(s) with Key Responsibility	Data Source and Calculation Methodology	Accuracy of Data
Scope 1	Fuel - Vehicle Fleet	<p>Diesel and petrol used in Birmingham Airport owned or leased airside and landside vehicles.</p> <p>The fleet of electric vehicles are charged on Birmingham Airport's premises. To avoid double-counting, emissions are accounted for under Scope 2 Electricity consumption.</p>	Finance Sustainability	Birmingham Airport operates two airside diesel refuelling stations and administers a system where pump use is controlled by card access and the user identified. Only the fuel used by the directly controlled fleet of Birmingham Airport has been accounted for in the GHG emissions footprint. For petrol fleet vehicles, fuel usage is obtained from fuel card reports.	High level of confidence as the data is drawn from transaction reports.
Scope 1	Fuel - Generators	Birmingham Airport operates diesel generators for two main purposes: under Civil Aviation Authority regulations, airfield generators are operated in low visibility conditions; back-up generators are operated in the terminal buildings for stand-by use.	Engineering Services Sustainability	Fuel consumption was calculated using the number of hours the generators run multiplied by the hourly fuel consumption. An hourly fuel consumption figure was calculated on a generator-by-generator basis dependent on the size of the generator and the load demand.	High level of confidence as the data is based on generator run time.
Scope 1	Gas	Gas consumption includes gas burned in boilers which provides space heating and hot water for all terminal areas and other onsite buildings. It also includes gas burned in the on-site CHP plant.	Engineering Services Finance Sustainability	<p>Consumption data has been obtained from meter readings and has been verified against financial invoices from the supplier. The data includes gas meters at the following locations:</p> <ul style="list-style-type: none"> • Fire Station • Cargo Primary • Terminal Buildings • Multi Modal Interchange • Control Tower • STS Hanger • Consolidation Centre <p>The amount of gas consumed by tenants and retail concessions, and therefore billed to them has been excluded and is instead accounted</p>	High level of confidence as data is drawn from metering information.

				for as part of Birmingham Airport's Scope 3 emissions. This data was obtained from metering and billing information held by Birmingham Airport's Finance department.	
Scope 1	Refrigerants	All buildings within Birmingham Airport's site boundary have chillers and air conditioning units which require a refrigerant medium. They range from medium commercial sized to small stand-alone units. The emissions recorded were based on refrigerant used to service existing equipment.	Engineering Services Sustainability	The Birmingham Airport Engineering Services department hold records of any equipment containing refrigerant and the type and quantity used. These records were used to calculate the emissions total.	High level of confidence as the data is from audited inventory.
Scope 1	Fuel - Fire Training	LPG used at fire training facility.	Finance Sustainability	Fuel consumption is based on transaction reports provided by the Finance department.	High level of confidence as the data is drawn from transaction reports.
Scope 2	Electricity	Electricity purchased by Birmingham Airport and used in airport terminals, airfield and auxiliary infrastructure. This includes electricity consumed by battery electric and plug-in hybrid electric vehicles owned or leased by Birmingham Airport when charging on-site.	Finance Sustainability	Electricity consumption information was obtained from supplier invoices and verified against consumption recorded through the energy software from the Airport's metering, where possible: <ul style="list-style-type: none"> • Incomer 1 • Incomer 2 • Incomer 3 • Pumping Station 1 • Pumping Station 2 • Consolidation Centre <p>The amount of electricity consumed by tenants and retail concessions has been excluded and is instead accounted for as part of Birmingham Airport's Scope 3 emissions. This data was obtained from billing information held by Birmingham Airport's Finance department.</p>	High level of confidence as data is drawn from metering information.

Scope 3	Fuel - Business Car Travel	Diesel and petrol fuel used in company cars, employee-owned vehicles used for business travel, or hire cars on business use.	Finance Sustainability	Data was obtained from fuel and mileage expense records from the Finance department. For fuel claims, an assumption was made about the split between petrol and diesel vehicle ratios using the most recent DVLA Vehicle Licencing Statistics.	Good level of confidence as the data is drawn from expense receipts and actual driven distances but an assumption is made on the split between petrol and diesel vehicles.
Scope 3	Fuel - Business Taxi Travel	Taxi used for business travel.	Finance Sustainability	Expense information obtained from Finance department. Conversion factor for 'black cab' used.	Low level of confidence as some expense claims included only a taxi fare meaning assumptions had to be applied based on location, minimum fare and cost per mile.
Scope 3	LTO Cycle	The LTO cycle to a height of 3,000 feet. This includes emissions generated during approach, taxi and ground idle (in), taxi and ground idle (out), take off and climb. It covers emissions from all aircraft using the airport, including commercial airlines, private aviation, helicopters and cargo, but excluding military flights.	Sustainability	Information on ATMs is downloaded from the airport operational database. Emissions are calculated using the ACERT tool provided by ACI.	High level of confidence of the accuracy of the ATM data obtained from the airport operational database. Low level of confidence in the emissions total as it is calculated using the ICAO simple approach, through the ACERT tool provided by ACI.
Scope 3	On-Stand Power (APU)	System used to power aircraft whilst parked on stands. This relates to fuel used in APUs only.	Sustainability Finance	Information on ATMs is downloaded from the airport operational database. Assumptions are made on FEGP usage based on Birmingham Airport's charging mechanism. APU usage time is based on ICAO guidance and best estimates based on Birmingham Airport's turnaround times. Emissions are calculated using the ACERT tool provided by ACI.	High level of confidence of the accuracy of the ATM data obtained from the airport operational database. Low level of confidence due to the number of assumptions made in the calculations.

Scope 3	Engine Testing (Run-ups)	Aircraft ground idle and high-power engine tests.	Airport Control Centre Sustainability	<p>Information on all engine testing is sent to the Sustainability team each month. For all high-power tests, emissions are calculated for each individual test based on engine type, fuel flow and testing time. For idle tests, an average test time is applied to all tests each month along with a representative engine and corresponding fuel flow.</p> <p>For engine type, the Airport refers to the ICAO Airport Air Quality Manual Doc 9889. The Airport refers to the latest version of the ICAO Aircraft Engine Emission Databank to find the fuel flow for each engine type and mode.</p>	High level of confidence as data is drawn from logs of high-power and idle engine tests. Medium level of confidence in emissions calculations as some assumptions are used.
Scope 3	Passenger Surface Access	Land surface access emissions for passengers traveling both to and from the Airport for all modes of transport that emit carbon i.e. car, bus, train and taxi.	Aviation Development Sustainability	Passenger surface access emissions are calculated using results of the annual passenger survey undertaken by the Civil Aviation Authority. The survey results are be extrapolated to the number of passengers for the reporting period. Passenger numbers are obtained from the airport operational database.	High level of confidence in the passenger numbers as this is drawn from the airport operational database. Medium level of confidence in the mode of transport and average distance data used in the calculations as it is based on a survey of c2,800 passengers in 2021.
Scope 3	Business Train Travel	Airport company staff business travel on train network.	Finance Sustainability	Expense information obtained from Finance department which includes departure station and destination and journey type (i.e. one-way or return). 'National rail' conversion factor used.	Good level of confidence as the data is drawn from expense receipts. However, a small number were incomplete and assumptions used accordingly.
Scope 3	Business Air Travel	Airport company staff business air travel.	Finance Sustainability	Expense information obtained from Finance department. Using the departure and arrival location, the great circle distance was calculated and multiplied by the appropriate GHG conversion factor either domestic, short-haul or long-haul. Broadly speaking the definition of domestic flights, are those within	High level of confidence as the data is drawn from expense receipts.

				the UK, short-haul are those within Europe and long-haul are outside of Europe.	
Scope 3	Waste Management	Recycling or disposal of waste from Birmingham Airport operations.	Sustainability	Emissions from waste management were calculated using tonnage data by waste type multiplied by the appropriate GHG conversion factor. This does not include aircraft waste which is the responsibility of the airlines.	Good level of confidence as the data is based on lifted bins. However, some weights are estimated.
Scope 3	Water use and Treatment	Water supply to the airport and wastewater treatment.	Finance Sustainability	Emissions associated with water supply and wastewater treatment. Invoices obtained from Finance. Supply volumes, sewerage volumes and trade effluent volumes were used to calculate emissions by multiplying by the appropriate GHG conversion factor.	High level of confidence as the data is drawn from meter readings.
Scope 3	Electricity Transmission and Distribution	Transmission and distribution (T&D) losses (generation of electricity, steam, heating and cooling that is consumed (i.e., lost) in a T&D system).	Finance Sustainability	<p>Electricity consumption information was obtained from supplier invoices and verified against consumption recorded through the energy software from the Airport's metering, where possible:</p> <ul style="list-style-type: none"> • Incomer 1 • Incomer 2 • Incomer 3 • Pumping Station 1 • Pumping Station 2 • Consolidation Centre <p>The amount of electricity consumed by tenants and retail concessions has been excluded and is instead accounted for as part of Birmingham Airport's Scope 3 emissions. This data was obtained from billing information held by Birmingham Airport's Finance department.</p> <p>Total site electricity consumption was multiplied by the appropriate GHG conversion factor.</p>	High level of confidence as data is drawn from metering information.

Scope 3	Staff Surface Access	Land surface access emissions for staff traveling both to and from the Airport for all modes of transport that emit carbon i.e. car, bus, train and taxi.	Planning, Transport, Surface Access and Strategy HR Sustainability	Staff surface access emissions are calculated using results of the annual staff travel survey undertaken by Birmingham Airport. The survey results are be extrapolated to the number of staff for the reporting period. Staff numbers are obtained from HR. The 'average-data' method was used for the calculations.	Low level of confidence for staff mode of transport based on 2019 survey data.
Scope 3	Third-party Fuel	Fuel used in ground service equipment and vehicles belonging to third parties necessary to handle the aircraft during the turnaround at the stand (e.g., ground power units, air climate units, aircraft tugs, conveyer belts, passenger stairs, fork lifts, tractors, cargo loaders).	Finance Sustainability	Birmingham Airport operates two airside diesel refuelling stations and administers a system where pump use is controlled by card access and the user identified. Only the fuel used by third parties has been accounted for.	High level of confidence as the data is drawn from transaction reports.
Scope 3	Tenant and Concession - Gas	Tenant and Concession gas consumption includes gas burned in boilers which provides space heating and hot water and gas used in catering operations.	Property Services Finance Sustainability	Meter reads are sent through by Property Services quarterly. The Finance department confirm recharge costs at the end of the financial year.	High level of confidence as data is drawn from metering information.
Scope 3	Tenant and Concession - Electricity	Electricity supplied by Birmingham Airport to Tenants and Concessions.	Property Services Finance Sustainability	Meter reads are sent through by Property Services quarterly. The Finance department confirm recharge costs at the end of the financial year.	High level of confidence as data is drawn from metering information.

4. SECR Report

The SECR report, as detailed in the Airport's annual report, is presented in the below table.

The Airport's total GHG emissions in 2021/22 were 8,637 t/CO₂e, an increase of 12% from 2020/21, in line with the increase in passenger numbers and the reopening of areas that were closed during the pandemic. We have continued to monitor and deliver energy savings through a combination of energy efficiency interventions and colleague engagement with energy and carbon management. However, it is very likely energy consumption and GHG emissions will continue to increase into 2022/23 as the Airport returns to pre-pandemic passenger levels.

Energy Usage & Tonnes of CO ₂ e by Emissions Type				
Emissions Type	2020/21		2021/22	
	Energy Usage (kWh/ litres/kg/miles)	Tonnes of CO ₂ e	Energy Usage (kWh/ litres/kg/miles)	Tonnes of CO ₂ e
Scope 1 (Gas)	16,473,415 kWh	3,029	18,906,743 kWh**	3,463
Scope 1 (Fuel – Owned Transport)	93,144 litres	236	145,861 litres	366
Scope 1 (Fuel – Diesel Generators)	65,134 litres	166	56,562 litres	142
Scope 1 (Refrigerants)	0 kg	0	64 kg	114
Scope 1 (LPG)	0 litres	0	2,000 litres	3
Scope 1 (Total)	-	3,431	-	4,087
Scope 2 (Purchased Electricity)	18,091,238 kWh	4,218	21,277,505 kWh**	4,518
Totals (Scope 1 & 2)	-	7,649	-	8,605
Scope 3 (Business Car Travel)	180,129 miles	50	1,787 miles*	31
			13,587 litres*	
Totals (Scope 1, 2 & 3)	-	7,699	-	8,637

*Business car travel emissions were calculated using both mileage claims (miles) and fuel receipts (cost converted into litres). These were added together for an overall business car travel emissions figure.

**Gas and electricity used by tenants and retail concessions are excluded as they are reported under SECR by these third-party companies.

Birmingham Airport reports on carbon emissions per passenger, which is a widely used metric throughout the aviation industry.

In 2021/22, carbon emissions per passenger decreased by 70% compared to 2020/21. However, the industry has been one of the worst affected by the COVID-19 pandemic and in 2020/21, passenger numbers decreased by 92% versus the previous year. Given the exceptionally low passenger numbers in 2020/21, the link between passenger numbers and carbon emissions has been somewhat disestablished and the results reported in the table below should be viewed in this context.

kg CO ₂ per passenger – Scope 1, 2 & 3 emissions					
Year	Passenger Numbers	Scope 1	Scope 2	Scope 3	Total
2020/21	979,327	3.50	4.31	0.05	7.86
2021/22	3,673,356	1.11	1.23	0.01	2.35

5. Full GHG Emissions Inventory

Birmingham Airport's full GHG emissions inventory is presented in the below table. As the Airport has historically only reported Scope 3 emissions every three years, a comparison to 2018/19 is shown.

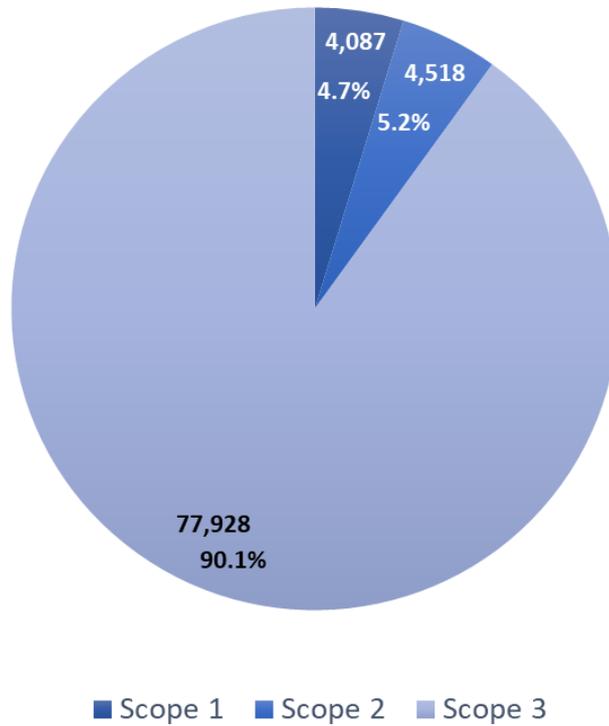
Energy Usage & Tonnes of CO ₂ e by Emissions Type (t/CO ₂ e)		
Emissions Type	2018/19	2021/22
Scope 1 (Gas)	4,390	3,463
Scope 1 (Fuel – Owned Transport)	662	366
Scope 1 (Fuel – Diesel Generators)	139	142
Scope 1 (Refrigerants)	117	114
Scope 1 (LPG)*	-	3
Scope 1 (Total)	5,309	4,087
Scope 2 (Purchased Electricity)	11,383	4,518
Totals (Scope 1 & 2)	16,691	8,605
Scope 3 (LTO Cycle)	116,959	36,823
Scope 3 (Passenger Surface Access)	140,740	33,991
Scope 3 (On-stand Power (APU))*	-	1,713
Scope 3 (Tenant and Concession - Electricity)***	-	1,666
Scope 3 (Aircraft Engine Testing)*	-	1,342
Scope 3 (Staff Surface Access)*	-	1,071
Scope 3 (Third-party GSE Fuel)*	-	444
Scope 3 (Electricity Transmission and Distribution)	967	400
Scope 3 (Tenant and Concession - Gas)***	-	268
Scope 3 (Water Use and Treatment)	386	160
Scope 3 (Business Travel - Car)	5	31
Scope 3 (Business Travel - Air)	97	12
Scope 3 (Waste Management)	60	6
Scope 3 (Business Travel - Train)	3	0
Scope 3 (Business Travel - Taxi)**	-	0
Scope 3 (Total)	259,216	77,928
Totals (Scope 1, 2 & 3)	275,907	86,533

*Not reported in 2018/19

**Emissions from business taxi travel was included under business car travel in 2018/19

***Emissions from Tenant and Concession gas and electricity consumption were reported as Scope 1 and 2 emissions in 2018/19, prior to SECR coming into place.

BHX Greenhouse Gas Emissions Breakdown 2021/22



6. Energy and Carbon Management Actions

Birmingham Airport's Sustainability Statement of Intent, sets out the Airport's vision for Sustainability, which is to:

"Maximise the economic and social benefits the Airport brings to our region and minimize our impact on our neighbours and the global environment."

One of the Airport's key principles is the commitment to becoming a Net Zero carbon Airport by 2033, prioritising zero carbon Airport operations and minimising carbon offsets, as outlined in the Airport's Net Zero Carbon Plan. The Plan will be formally reviewed by Birmingham Airport's Board on an annual basis, and when otherwise necessary, to monitor progress against the actions contained within and to ascertain if any revisions to the Implementation Plan are necessary to enable the achievement of the airport's Net Zero commitment.

Whilst the Airport has a track record in achieving low carbon operations, meeting the Net Zero commitment will require more impactful action and new investment to deliver significant change across the Airport, including:

- Significant investment in on-site renewable energy generation, energy efficient lighting and improvements in energy management technology.
- Planning to source up to 40% of the electricity used at the Airport through solar power.
- Extending the network of electric vehicle charging infrastructure to enable more low carbon vehicles in and around the Airport boundary.

- Renewing the Airport’s heating and cooling infrastructure, including upgrades to the building fabric and a transition to low carbon heating.
- Building on relations with a range of partners, and our colleagues, to create the awareness, interest and capability that will enable Birmingham Airport to achieve its Net Zero goal.
- Gaining Level 3 Airport Carbon Accreditation.

A summary of the key actions taken during the 2021/22 financial year are set out below and more information can be found on our website.

Energy Efficiency Actions 2021/22	
Net Zero Working Group	<p>The Net Zero Working Group continues to meet monthly and is made up of self-nominated Net Zero leaders for all key business areas. The group’s aim is for Net Zero leaders to support the delivery of energy and carbon savings for their individual areas in line with our commitment to be a Net Zero carbon Airport by 2033.</p> <p>The group is updated on monthly energy consumption and the associated carbon emissions by area in order to have a more strategic focus on where savings can be made. Actions for energy saving are assigned to Net Zero leaders for progression and leaders are encouraged to initiate behavioural change with colleagues through knowledge and data sharing.</p>
Smart Meter Technology	<p>Smart meters are the basis of our energy management system. Automatic readings are taken across the Airport site, which feed into monthly area energy and carbon reports. These are cascaded to all business areas to drive energy savings through targeted energy reduction initiatives. The Airport has around 450 meters and work has been ongoing throughout the year to maintain this network and improve meter coverage.</p>
Operational Energy & Cost Reduction Group	<p>Monthly meetings of the Operational Energy & Cost Reduction Group - made up of colleagues from senior leadership, Sustainability, Engineering and Finance - continues to drive energy savings through analysis of metering data. Action points include education / behavioural changes and technical interventions, for example changing heating and cooling timings in areas across the site, turning down equipment or switching off equipment where possible.</p> <p>The Airport has a monthly meeting with its building energy management system (BEMS) operator to review time zones and maximise savings from the heating, ventilation and air conditioning (HVAC) system. This includes running HVAC for shortened periods, delaying the return to annual service of chillers and turning off HVAC and boilers to areas where it is deemed they are not required.</p>
LED Upgrades	<p>The Airport has continued a programme of upgrading lighting to LED across the site in offices, terminal facilities, and external lighting. All projects have improved wayfinding and appearance for customers of the Airport as well as reducing energy consumption and maintenance requirements.</p>
Appointment of Energy and Carbon Manager	<p>The Airport has appointed a full-time Energy and Carbon Manager, who will own and implement the Net Zero Carbon Plan.</p>
Communications Campaign	<p>In line with passengers and colleagues returning to the Airport, energy and carbon communications have been cascaded through a variety of channels, engaging key airport stakeholders to take actions to reduce energy consumption and raise awareness of our Net Zero carbon commitment.</p>

7. Assurance

The emission calculation methodologies are aligned with UK Government guidance and the GHG Protocols.

Internally, the Airport's Environmental Management System aligns to ISO 14001, ensuring robust processes are in place for the collection of data and reporting of energy use and associated emissions. The Energy and Carbon Manager has responsibility for collection of data and emissions calculations following the Sustainability team's local operating procedures. All the data and calculations are scrutinised by Sustainability team members and a final review is undertaken by the Finance department.

The GHG emissions data and calculations reported under SECR, and included within the Airport's annual report, are audited by an external company as part of the financial audit.

8. References

ACI (2020) Airport Carbon Accreditation Application Manual. Airports Council International. [Online] [Accessed on March 15th 2022] <https://www.airportcarbonaccreditation.org/airport/technical-documents.html>

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