



Above and Beyond:

Our Roadmap to a Sustainable Future

Investment

Innovation

Responsibility



CEO Welcome

The aviation sector has been severely impacted by the global pandemic but, as we recover, it is imperative that we rebuild in the right way. In this roadmap, we outline the steps London City Airport will be taking between now and 2030 to put sustainability at the heart of everything that we do: reducing carbon emissions, enhancing our natural environment, and helping our communities grow and prosper.

Our ambition is to become one of the most sustainable airports in Europe. In 2019, we were one of 250 global airports to pledge to achieve net zero emissions by 2050. Today, I am pleased to say that we are committed to going even further. We now believe we can become a net zero emission airport by 2030.

Our commitments are in line with global efforts to reduce carbon emissions and the pledges made in the COP26 Declaration. Our ambitions reflect the UK focus on sustainability, from the recent enactment of the Environment Act 2021 to the industry specific priority areas developing as part of the Jet Zero strategy. This decade will be one of rapid change and technological advancement, as government, business and communities collaborate, and build momentum, on achieving net zero.

We have laid out a plan of how we intend to reduce the airport's carbon emissions in the areas under our direct control, such as the use of renewable energy sources for powering and heating our buildings and vehicles.

But our roadmap covers more than that. We understand how important it is for everyone to reduce emissions across the whole of aviation. That is why we are working closely with a range of partners to understand how we can support manufacturers and airlines to achieve zero emission flight.

As you will read, reducing our overall emissions will be a team effort, requiring all of our partners, current and future, to work with us to align their ambitions with ours. But more than that, we recognise that we need to look for ways to involve and include our staff and our passengers as well. We want them to understand what we are striving to achieve and, furthermore, to actively support it.

Innovation has been part of the London City story since it opened in 1987. Creating an airport on the site of an old seaport near the centre of London required imagination, invention and collaboration, in particular with the local community around the airport. We are approaching the UK's transition to net zero emission flight with the same values and commitment to our communities.

Given our size, our location and the nature of our route network and operation, we are ideally placed to help shape the next phase of aviation innovation in London and the UK. We do not have all the answers, so we want to work with the best British and global organisations to find ways to enable and accelerate progress.

Over the next decade and beyond there will be huge progress in how we fly and how we connect the world, in a far more sustainable way. But to harness the ambition and the technology solutions coming forward there is an incredibly important role for the Government when it comes to setting policy and establishing the market conditions that will enable UK aviation to take a giant leap forward.



OUR ASKS OF UK GOVERNMENT

Absolute Zero in Airport Operations –

To recognise that achieving absolute zero will require a global effort, and involve other industries and technology solutions that are yet to be realised. We would encourage Government to set up an international taskforce and use its outputs to help identify an achievable target and supporting strategies.

Zero Emission Flight (ZEF) – For Government to continue to back research into how ZEFs can be integrated into airport operations, to designate ZEF priority airports and to set favourable market conditions for the production and supply of hydrogen.

Sustainable Heating – As part of the Department for Business, Energy and Industrial Strategy (BEIS) led future heating & buildings strategy, for airports to be assessed specifically and for zero carbon solutions to be considered in the context of the emergence of Zero Emission Fuels towards the end of this decade.

Sustainable Aviation Fuel (SAF) – to help accelerate the production of SAFs and to be a leader in this strategically important global market, facilitating successful implementation of governments' future mandate on SAF uptake or as a minimum a 10% uptake goal by 2030.

We also set out in the roadmap our plans to protect and enhance the natural environment around us. This includes continuing to reduce aircraft noise and improving air quality, as well as eliminating waste and enhancing biodiversity. Alongside this, we are also an airport that takes enormous pride in serving our local community. As we all recover from COVID-19, it has never been so important for businesses to take an active role, alongside public sector partners, to help surrounding areas achieve their potential.

We are gradually increasing employee numbers again, and we will continue to work with partners to increase opportunities for local residents to develop careers at London City Airport. We also recognise that the types of jobs required at the airport will change in the lifetime of this roadmap, and we will actively look for ways to build the local skill set so that our future engineers and analysts are from East London. We also aspire for London City to be a place where our people feel that they are supported and can prosper. That is why we will be investing even more in employee wellbeing and in ensuring we are a company that operates to the highest professional standards and is truly representative of the community in which it is located.

We want to make the most of our unique location in London's Royal Docks. Building on the progress we have made since we opened, we believe we can be the UK's best-connected airport through sustainable transport modes. Working closely with partners, we can improve on our existing connections to local public transport as well as planning for how we can embrace more journeys to and from the airport by rail, river and even walking and cycling. We know this will be a challenge but it is a challenge that will create opportunities for the airport, our partners and everyone around us.

We firmly believe that if we can deliver on the ambitions set out in this roadmap we can achieve our goal of London City being an airport everyone is proud of working at, working with, and flying from.

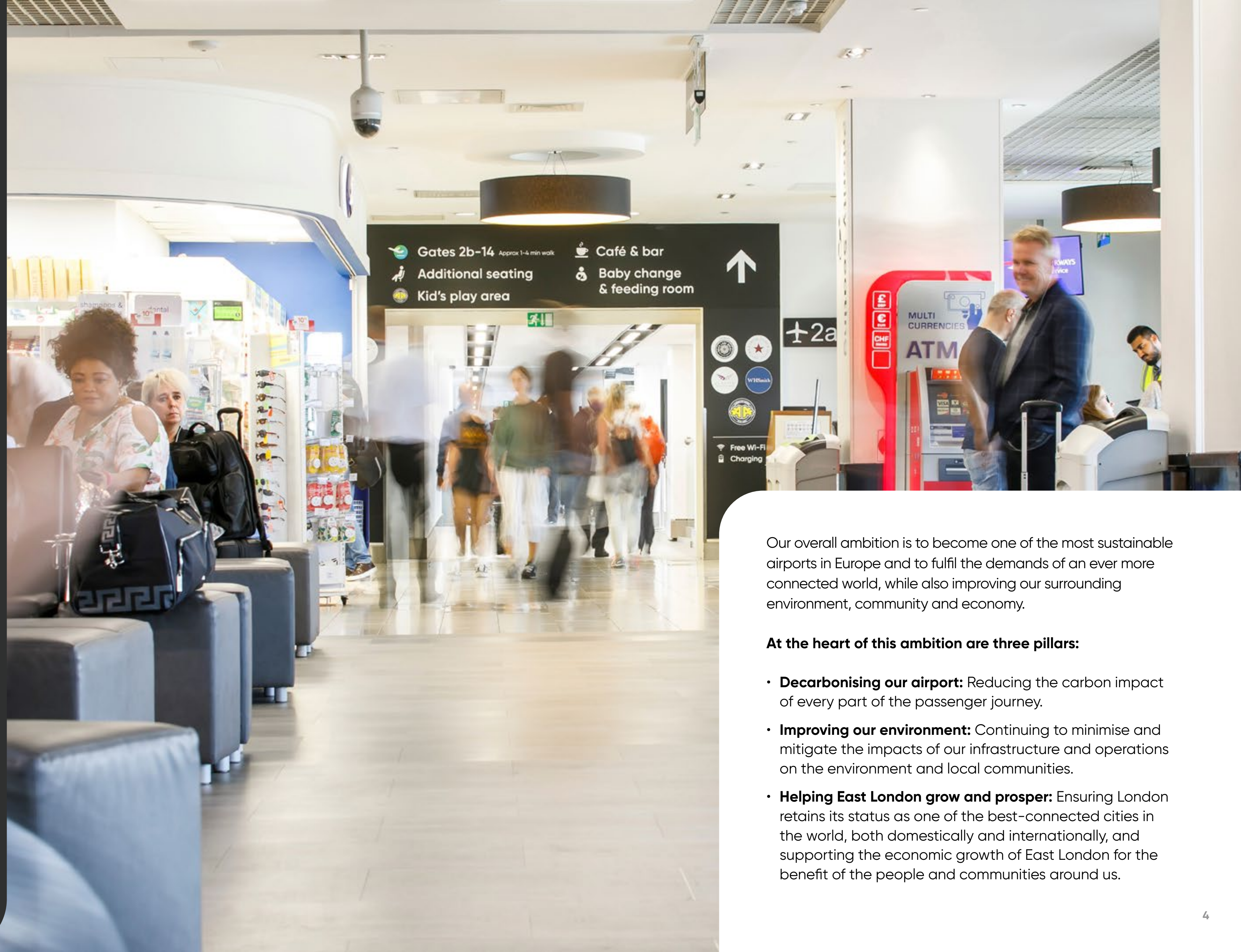
Robert Sinclair
CEO, London City Airport

Our Ambition

As the UK recovers from the pandemic, we all need to 'Build Back Better'. Now is the right time to publish this plan that sets out our ambition, targets and commitments through to 2030. It follows the publication of our London City Airport Master Plan at the end of 2020 when we set out a high-level vision for the airport over the next 15 to 20 years.

Above and Beyond: Our Roadmap to a Sustainable Future has been developed:

- To address the wide range of environmental, social and economic issues that are material to the airport and its operations – climate change in particular.
- To set out a framework for a sustained programme of action through to 2030.
- To identify the actions that we can and should take now to reduce our impacts and create efficiencies throughout our operations.



Our overall ambition is to become one of the most sustainable airports in Europe and to fulfil the demands of an ever more connected world, while also improving our surrounding environment, community and economy.

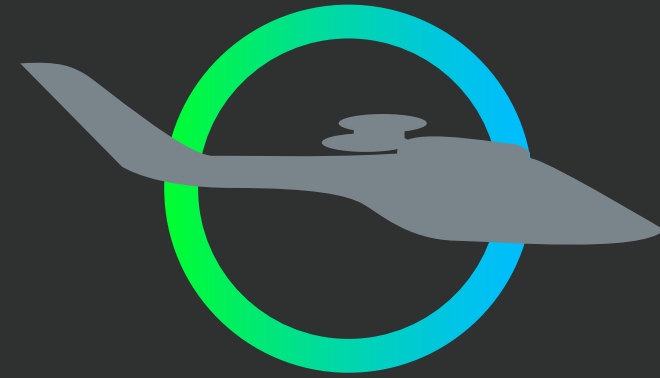
At the heart of this ambition are three pillars:

- **Decarbonising our airport:** Reducing the carbon impact of every part of the passenger journey.
- **Improving our environment:** Continuing to minimise and mitigate the impacts of our infrastructure and operations on the environment and local communities.
- **Helping East London grow and prosper:** Ensuring London retains its status as one of the best-connected cities in the world, both domestically and internationally, and supporting the economic growth of East London for the benefit of the people and communities around us.

In order to achieve this ambition, there are five core commitments:



Becoming a **net zero** carbon airport by 2030.



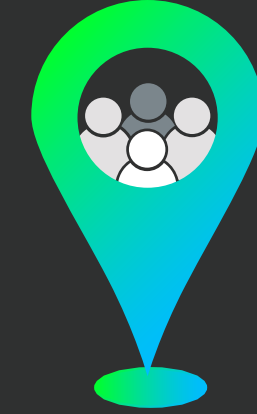
Be one of the first airports in the UK to facilitate **zero emission flight**.



To be the **best-connected** airport in the UK with 80% of all journeys to the airport to be made by sustainable transport modes by 2030.



Eliminate all avoidable single-use plastics within the airport by 2025 and be a zero-waste airport by 2030.








Support local people by creating more opportunities, increasing investment for community groups and requiring all on-site partners to pay the London Living Wage by 2026.



How Our Strategy Aligns with the UN Sustainable Development Goals (SDGs)

As part of their 2030 Agenda for Sustainable Development, 193 United Nations (UN) countries around the world drafted and adopted 17 goals. They reflect the biggest social, economic and environmental challenges currently faced on Earth. The SDGs are defined as *“the blueprint to achieve a better and more sustainable future for all. They are a universal call to action to end poverty, protect the planet, and ensure that all people enjoy peace and prosperity.”*

As part of our commitment to supporting these aims of the UN, we have developed our roadmap with the intention of making a significant contribution to the achievement of SDGs. We have looked at which issues are a priority for our stakeholders, and mapped these against the relevant SDGs, focusing on those with a stronger link to our material issues and corporate commitments, and to which we can make a meaningful contribution. Each of the selected SDGs, included below in numerical order, is assigned to the relevant pillar. These will be periodically monitored, with the aim of identifying any potential areas of improvements to work on. Progress will be reported on yearly basis on the airport’s website.

Relevant UN SDGs	SDG Goal	Relevant SDG targets	Above and Beyond commitments
 <p>DECENT WORK AND ECONOMIC GROWTH</p>	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	<ul style="list-style-type: none"> Decouple economic growth and resource consumption Reduce youth unemployment Full and productive employment in decent jobs 	<ul style="list-style-type: none"> Support local economic growth Facilitate skills development for local people Provide high quality work for local people Support local community development
 <p>INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	Build resilient infrastructure, promote an inclusive sustainable industry and foster innovation.	<ul style="list-style-type: none"> Provide quality, reliable, sustainable infrastructure Upgrade sustainable infrastructure (reduce CO2 per unit value added) Promote innovation, public and private research and development 	<ul style="list-style-type: none"> Facilitate low and zero carbon emissions flight Increase percentage of sustainable journeys to and from the airport Work with partners to drive innovation and support research and development
 <p>SUSTAINABLE CITIES AND COMMUNITIES</p>	Make cities and human settlements inclusive, safe, resilient and sustainable.	<ul style="list-style-type: none"> Provide access to sustainable transport Improve air quality (PM2.5 and PM10) 	<ul style="list-style-type: none"> Promote lower carbon journeys to the airport Work with partners to promote more accessible journeys to the airport and the local area Prioritise biodiversity gains Minimise our environmental impacts
 <p>RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	Ensure sustainable consumption and production patterns.	<ul style="list-style-type: none"> More efficient use of natural resources Improve recycling rates Increase reporting of sustainability performance 	<ul style="list-style-type: none"> Adopt a circular economy approach to our operations and implement its principles Apply sustainable procurement practices and work with our supply chain to promote use of more sustainable materials
 <p>CLIMATE ACTION</p>	Take urgent action to combat climate change and its impacts.	<ul style="list-style-type: none"> Strengthen resilience to climate change Implement climate change measures 	<ul style="list-style-type: none"> Net Zero carbon operations at the airport Increase our climate resilience Carry out climate risk assessments Reduce air quality impacts due to both CO2 and non-CO2 emissions

Implementation and monitoring

The successful delivery of any business strategy requires ownership and leadership from the top of the organisation. Our Sustainability Steering Group, which reports to the CEO and Board, will take responsibility for this roadmap to ensure that it has the priority and resources needed to implement it successfully.

Monthly progress updates will be provided to the Sustainability Steering Group through three working groups which are aligned to each pillar. There will be regular review by our Board to check that progress is on track to deliver against the aims of the roadmap, and also identifying risks and developing adaptation action plans.

We will also ensure that a yearly update is shared publicly on the airport's website, as well as with key stakeholders.

We recognise that the material issues we are addressing will continue to evolve and other challenges and opportunities may emerge in the coming years, along with new technology and innovation. We will undertake a strategic review of the roadmap every three years, subject to policy updates and industry changes, to assess whether we need to refresh or adjust our priorities, aims and action plans in line with relevant national policies, international strategies, and the latest technology.



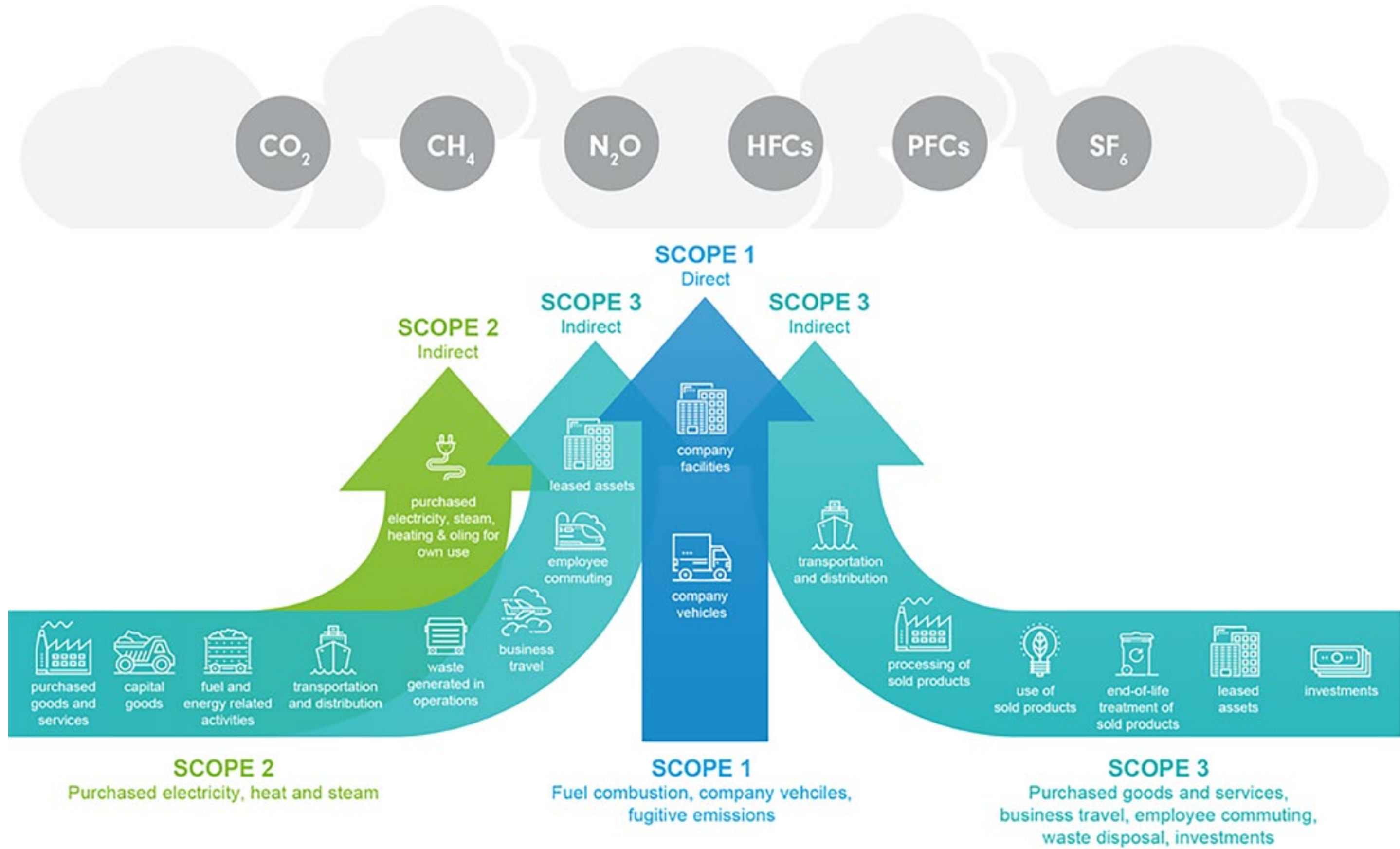
CLASSIFYING OUR GREENHOUSE GAS EMISSIONS

London City Airport measures and reports our carbon footprint according to the leading GHG Protocol which classifies companies' greenhouse gas (GHG) emissions in three scopes:

Scope 1: Direct GHG emissions that occur from sources that we own and/or control. At London City Airport we report emissions from: gas used in our buildings' heating system; fuel from our vehicles, plant and GSE, and fire training, leaks from refrigerants, air-conditioning units and de-icing substances.

Scope 2: Indirect GHG emissions as they physically occur at the facility where they are purchased, such as electricity.

Scope 3: All other indirect emissions, which are a consequence of the activities of the airport but occur from sources not owned/controlled by us and we can only aim to influence (at London City Airport this includes aircraft landing and taking-off, aircraft auxiliary power units, electricity purchased by our tenants, off-site waste management, passengers and staff travel to the airport).



Source: GHG Scopes



Pillar 1: Decarbonising our Airport

This section focuses on our actions to respond to the climate emergency, in line with national and international policies supporting global decarbonisation efforts. It includes our roadmap to net zero for Scope 1 and 2 emissions and our active involvement in initiatives to reduce Scope 3 emissions. This pillar aligns with the following SDGs: **9** Industry, Innovation and Infrastructure; **11** Sustainable Cities and Communities; **13** Climate Action.

OUR COMMITMENT

For many years London City Airport has focused on reducing its carbon impact. Since 2013, carbon emissions from our airport operations have reduced by 45% in absolute terms. In 2019, we were one of 250 global airports to commit to achieve net zero emissions by 2050 for the emissions we are directly responsible for (Scope 1 and 2). Given our track record to date, and with a strategy to accelerate our transition to a net zero carbon future, we are now in a position to bring forward this target by 20 years and to make an updated, and significantly more ambitious, commitment:

We will be a net zero carbon airport by 2030.

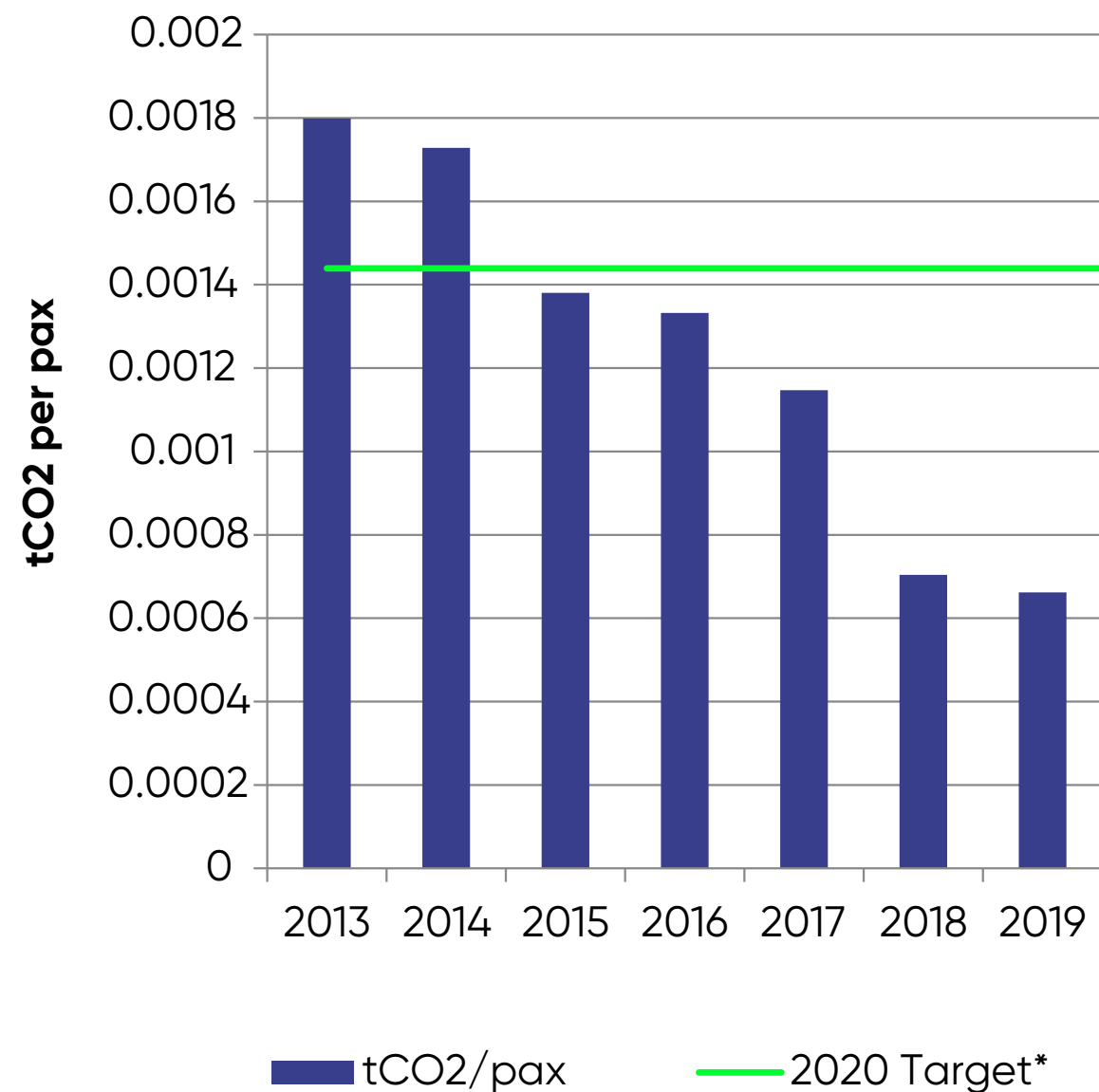
Our definition of Net Zero aligns with the Intergovernmental Panel on Climate Change (IPCC) and follows the Airports Council International (ACI) Airport Carbon Accreditation scheme. This provides that the airport should invest most of its focus on making absolute reductions in Scope 1 and 2 emissions through carbon management and reduction initiatives. Then, once all reduction activities have been examined and implemented, those residual emissions that are clearly “unavoidable” can be offset through neutralisation projects when possible, prioritising local and nature based solutions.



Our record so far

Reducing Carbon Emissions:

In 2013, we joined the Airport Carbon Accreditation programme to provide a framework to guide our work on reducing carbon emissions and to report our progress. We set ourselves a target to reach 20% carbon emissions reduction (Scope 1 and 2) per passenger by 2020. We achieved our reduction target in 2015 and by 2019 recorded a 63% reduction in emissions per passenger. We are proud of that achievement, particularly as it was delivered during a period when we also saw a 50% increase in our passenger numbers.



LCY Scope 1 & 2 emissions

We have made significant carbon savings by focusing on using energy more efficiently and switching to newer, improved technology as it becomes available, for example:

- Moving to LEDs for runway lighting.
- Generating renewable energy onsite, using solar electricity panels.
- Beginning the process of decarbonising our fleet of vehicles and ground service equipment.

We also import electricity, but we ensure that 100% of the electricity that we purchase is from certified renewable sources. We use HVO (Hydrotreated Vegetable Oil Fuel) for our substation’s back-up generator which reduced CO2 emissions by up to 90% if compared to diesel.

We procure high-quality carbon offsets certified under Gold Standard, Verified Carbon Standard (VCS), and Clean Development Mechanism schemes to cover the remaining emissions from our operations that we have not yet eliminated.

This meant we achieved Level 3+ (carbon neutrality) in the Airport Carbon Accreditation programme in 2019 and were in alignment with the net zero by 2050 target established by ACI in the same year. Progress has undoubtedly been made to date, but we recognise there is much more to do.

As well as lowering Scope 1 and 2 emissions, we have also looked to reduce Scope 3 surface access emissions by promoting sustainable transport options when travelling to and from London City. This has included introducing a new scheme to increase car sharing for staff, the uptake of electric car usage through a salary sacrifice scheme and installing our first EV chargers for use by passengers, staff and taxis.

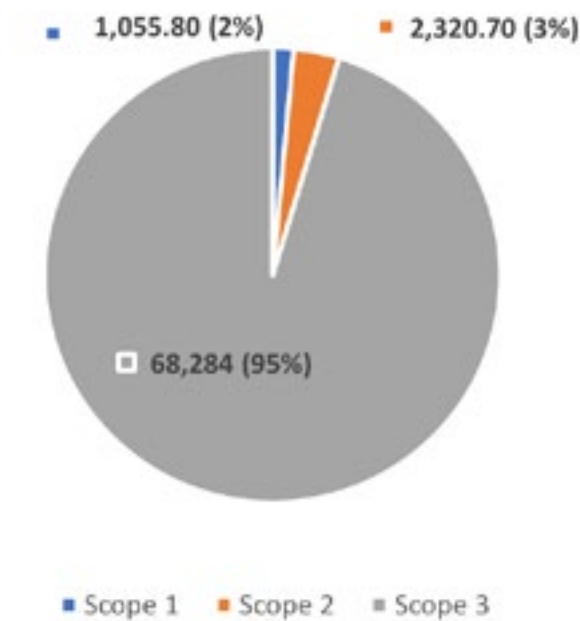
Our current carbon profile:

As shown in Table 1, In 2019 the carbon emissions that we directly manage (Scope 1 and 2) totalled 3,376.5 tonnes of CO2 equivalent and came from three main sources as follows:

- Emissions from electricity from the grid to power buildings and site infrastructure
- Emissions from fuel, mainly red diesel, for our fleet of vehicles and machinery
- Emissions from the natural gas used to heat our buildings

A breakdown of Scope 3 emissions we don’t directly own/control and related sources is also included for the same reporting period.

2019 Carbon footprint (Tonnes of GHG Emissions)



Scope 3 emissions (2019)	Tonnes of CO2e	%
Aircraft	56708.2	83%
Supply of energy to tenants	244.9	0%
Process emissions from waste, water, refrigerants	311.9	0%
Passengers surface access	10625.25	16%
Staff commuting	370.77	1%
Staff business travel	23	0%



What's next?

Scope 1 and 2

Reducing Carbon Emissions to Net Zero:

We have made significant progress in reducing our carbon impact already, but we believe we can accelerate the transition to a net zero carbon future.

For scopes 1 and 2 we have developed our carbon reduction trajectory and set the actions required to achieve net zero at a level consistent with limiting global temperature rise to no more than 1.5 degrees C in accordance with the Paris Agreement and Science Based Targets -SBTi.

We will reduce our Scope 1 & 2 emissions as much as we possibly can to become a net zero carbon airport by 2030 limiting the total amount of unavoidable emissions to offset. However, we acknowledge that some emission sources, though relatively low, are very difficult to reduce due to barriers in technological advancement. The airport industry as a whole will need support to accelerate finding zero carbon solutions for fire training, de-icing, F-Gases (used for air conditioning) and some airfield operational vehicles. Nevertheless, when facing these unavoidable emitters, we commit to remove the equivalent amount of CO2 from the atmosphere if no new advancements occur before 2030 while continuing to research and work in partnership to understand the best techniques and technology available to remove them from our operations.

Achievement of our net zero target by 2030 is based on the following assumptions:

1	Scope 2 - Market Based Electricity	We continue full procurement of renewable electricity from 2020 and, explore further solutions and partnership opportunities to increase use of renewable sources, including solar panels.
2	Scope 1 - Buildings	We aim to upgrade our gas system so that heating is provided through renewable energy technology.
3	Scope 1 - Fire training, process emissions and de-icing	Despite emissions from these sources being small, we will work in partnership to reduce them, while assuming that they will remain relatively constant for the foreseeable future unless new technology comes into the market.
4	Scope 1 - Airfield Operational Vehicles	We continue to upgrade our airport vehicles and equipment to be zero carbon by 2030 and are working with suppliers to identify innovative solutions where technology advancement are not yet available, for example some winter operation vehicles and fuelling fleets.

To help us drive this transformation, we will adopt a common framework for active carbon management with measurables and verified interim targets. We plan to become accredited to Level 4+ Transition in the Airport Carbon Accreditation programme by the end of 2022, continuing to procure high-quality carbon offsets for our residual emissions, focussed on nature-based solutions under certified schemes. We also recognise the need to support local projects and a new biodiversity fund has been committed to in this Roadmap¹.

We are developing a new Energy Strategy for the airport to meet our net zero target, looking at our existing and future infrastructure to maximise energy efficiencies and use of renewable sources across our buildings and operations. This includes new sustainable solutions for heating as well as on-site generation and storage potentially through the installation of solar panels. We are currently working with partners, including the Mayor of London's Resilience Fund, to explore the possibility of installing floating solar panels in the dock to power our airport.

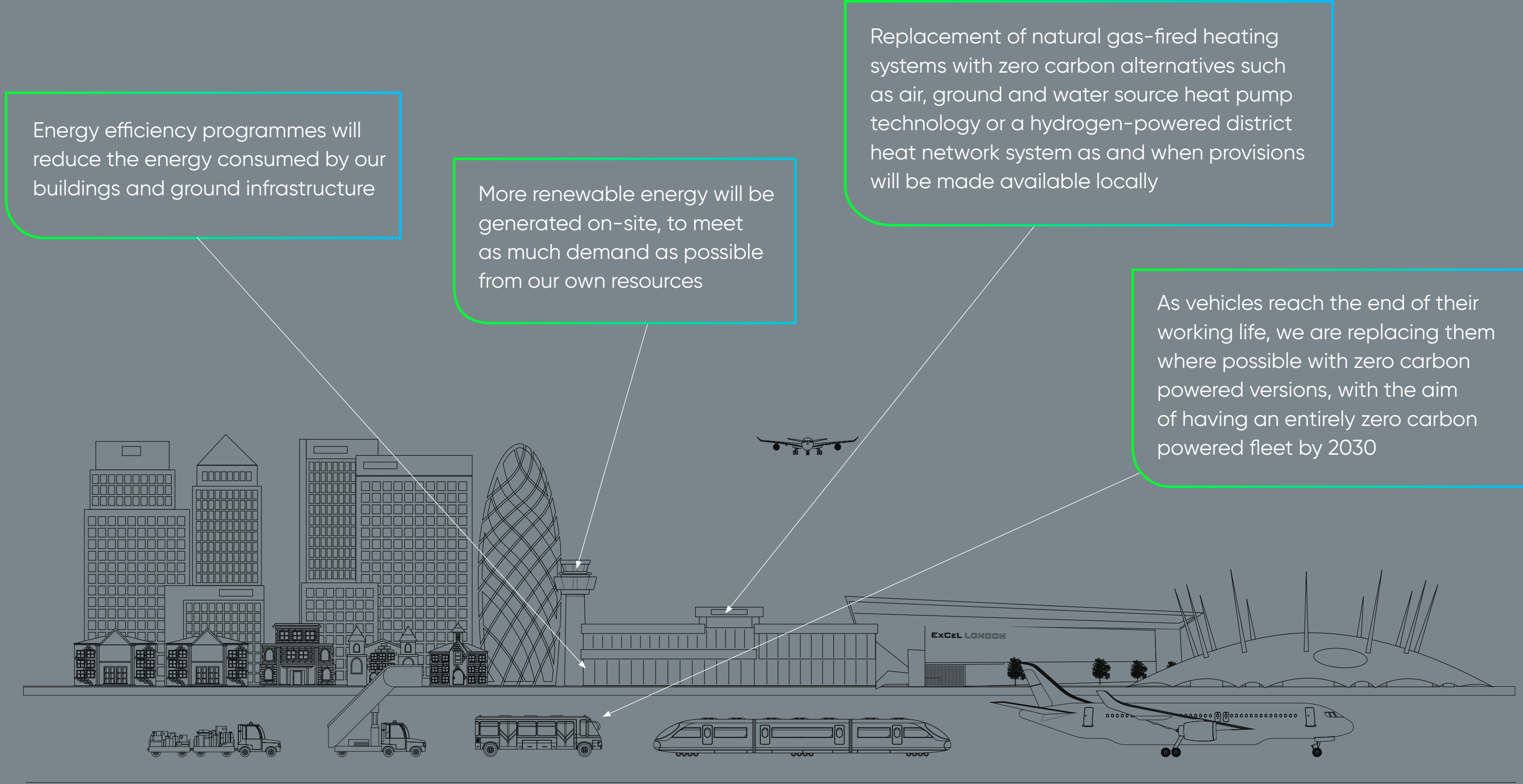
We will continue to raise awareness and actions to minimise energy use and future power demand and improve efficiency through the use of equipment and technology, including optimising our Building Management System's controls. This will help us improve data collection and analysis and therefore enhance the operational performance of our buildings and ground infrastructure while influencing staff behaviour and in turn reducing overall energy consumption and carbon emissions.

¹Levels 4 and 4+ have been added to the programme in 2020 to align it with the objectives of the Paris Agreement and to support airports in achieving net zero. To achieve accreditation at this level requires, in addition to Level 3+, a commitment to set up an absolute reduction target and to demonstrate active engagement with third parties at the airport towards delivering emissions reductions.



Reducing our carbon footprint

While achieving absolute zero emissions is a long-term aspiration for London City, it should be noted that this will require research and innovation into areas where technology and zero emissions solutions are not yet available, such as aircraft de-icing and fire response training.



Scope 3

Sustainable Fuels:

Our largest contributor to our total carbon footprint are aircraft emissions (Scope 3). They carry the bulk of emissions for the aviation industry and represent the greatest overall challenge. To support the delivery of net zero aviation and our commitment to facilitate reduction of aircraft emissions on our airport during this decade, we will prepare a new Fuel Strategy. This strategy will build on the work we have already undertaken in recent years to adapt our infrastructure to the upcoming phases of transition from traditional to new energy sources and facilitate supply to our airline partners and increase their uptake.

Airspace Modernisation:

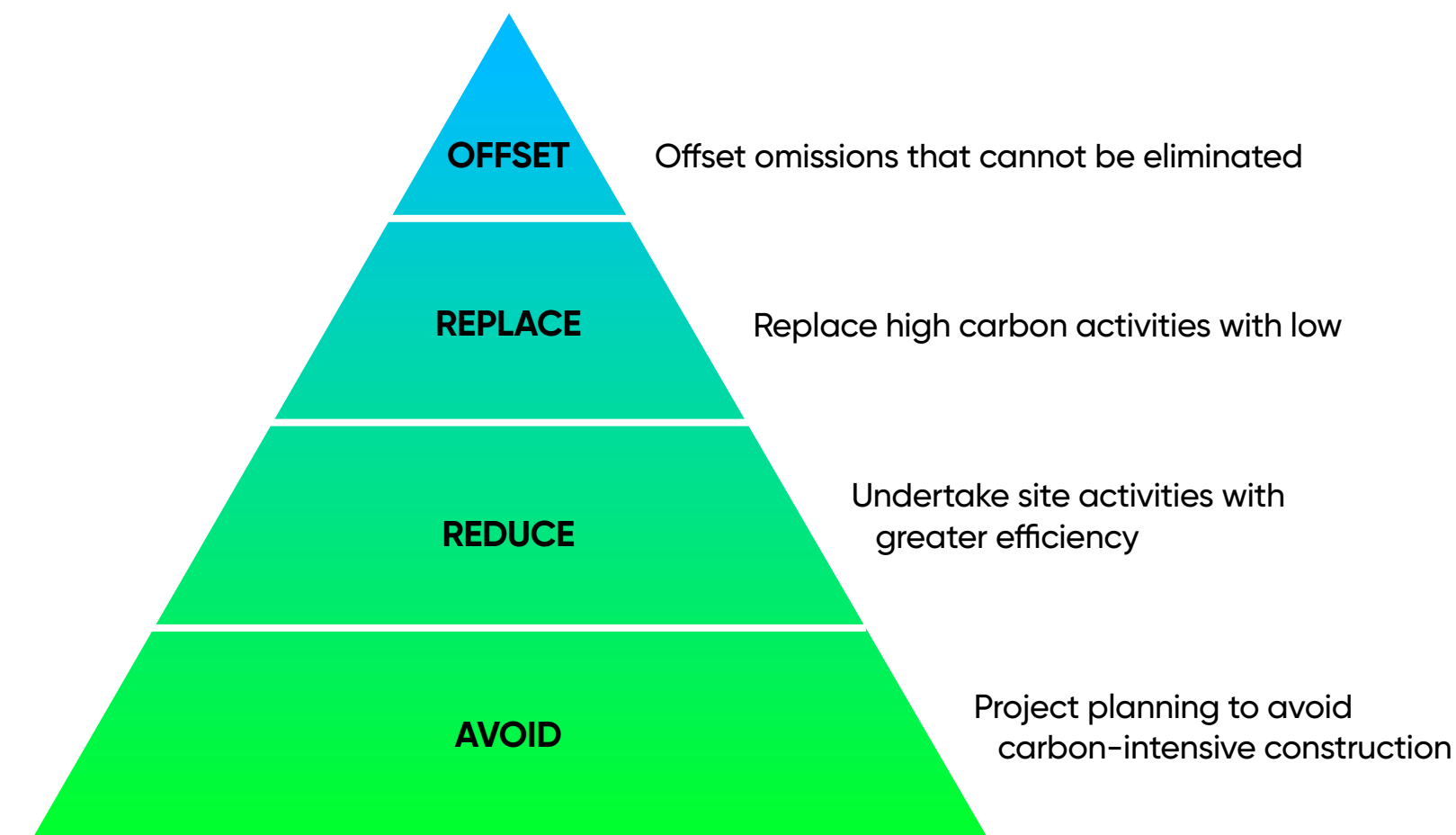
We are actively involved in the Government's Airspace Modernisation Programme along with 21 other airports across the UK. We are mandated to follow the CAA's Civil Aviation Publication (CAP) 1616 process, and we are currently finalising comments received from our initial stakeholder engagement on our draft airspace change design options. Due to our central location and principles driving our programme, we have the potential to deliver significant environmental benefits for our local communities, both in terms of CO2 reduction and noise management.

Construction:

The construction of new or replacement buildings and infrastructure can have a significant carbon impact, both due to embodied carbon in the construction materials and the energy used in the construction process itself. We will work with our delivery partners and contractors to develop and implement a Sustainable Construction Strategy based on the principles of the Construction Carbon Hierarchy (see image) by ensuring that we maximise the use of our existing infrastructure and minimise the need for new or replacement infrastructure as the airport develops in the future.

Where new construction is required, the strategy will set standards and targets for sustainable construction practices, focused on, but not limited to, carbon reduction (in particular embodied carbon) and energy efficiency requirements for any future buildings.

Construction Carbon Hierarchy



Sustainable Transport:

In 2019, London City had 73% of passengers accessing the airport by public and sustainable transport, the highest percentage of any UK airport. We want to go further and drive the transition towards efficient and sustainable multi-modal transport to and from our airport; promoting the use of public transport which better serves the airport, its passengers, local businesses and residents. Our ambition is to become the most sustainably connected airport in the UK, with 80% of all journeys to and from the airport to be made by sustainable transport modes by 2030.

In the short term, we will work closely with Transport for London (TfL) and Docklands Light Railway (DLR) to support the introduction of new carriages with increased passenger capacity. We will also work with them to align operating hours with airport operations and to assess options around providing passengers direct access from the DLR platform to the terminal. Where passengers still need to travel by car, we want to continue to reduce the impact of that journey. Currently we encourage car sharing and have introduced a salary sacrifice scheme to support staff in their purchase of an electric vehicle. We have also installed seven new electric vehicle chargers already and plan to scale this up as more electric vehicles are introduced across London.

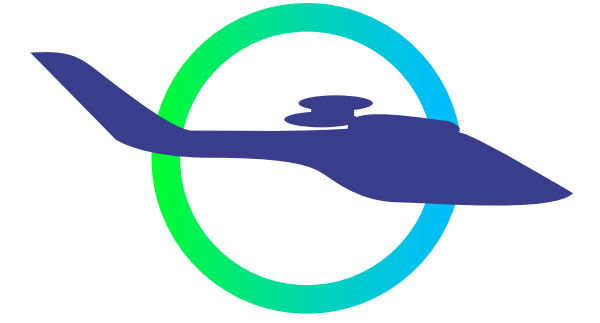
We will also review our current Surface Access Strategy and Green Travel Plan setting up targets and initiatives to guide how we continue to increase the uptake of public transport and active travel options for our staff, on site partners and passengers, and encourage other sustainable travel choices in the longer term. We will work with partners to introduce a direct connection for passengers using the Elizabeth Line to access the airport and will update our Silvertown Elizabeth Line Station feasibility study as we continue to believe significant connectivity and community benefits could be unlocked by it.

As the Royal Docks Enterprise Zone develops further, attracting new businesses and residents, we believe the airport can be one of the few airports in the world that will be accessible through walking and cycling routes. We will work with the London Borough of Newham and the Greater London Authority on making this a reality.

Carbon Monitoring and Reporting:

In addition to disclosing our carbon footprint annually to key stakeholders in line with emerging government policy, we plan to help passengers, on-site partners and staff understand their carbon footprint and provide opportunities to reduce and where possible neutralise it. We will assess opportunities for capturing and reducing carbon emissions throughout our supply chain and using calculation tools for our staff and for our passengers in line with airline schemes that focus on neutralisation or local biodiversity projects. In addition, we will share relevant airport metrics through our sustainability website so passengers can understand the total carbon output of their journey to and through London City Airport.





The future of flight

OUR COMMITMENT

Aviation is arguably one of the most challenging sectors in which to achieve net zero. While significant progress has been made, much of the technology needed to fully decarbonise flight is emerging. The aviation sector must be absolutely focused on driving down emissions from all of its operations. London City Airport is ready to play a leading role in the future of flight and, alongside partners, facilitate development and deployment of low and zero carbon aircraft. We believe, given our focus on domestic and regional aviation, we can be one of the first airports to deliver zero emissions flight in the UK at a meaningful scale.

OUR POTENTIAL

We are committed to being a leading player in facilitating zero carbon flight in the UK: our location and our mix of domestic and regional flights means we are well placed to be a hub for innovation and collaboration in defining and delivering the future of flight.

We will help enable the transition towards next and future generation aircraft, by working with partners to adapt our infrastructure and operating environment to facilitate the development and roll-out of new generation aircraft, the use of Sustainable Aviation Fuels (SAFs), and emerging technologies in hybrid, and hydrogen-powered aviation. Based on current

collaborations, we believe it will be possible to accommodate zero carbon flights from the airport in the next decade.

In the medium term, the use of SAFs offers great potential to reduce aircraft carbon emissions. Alongside our airlines, aircraft manufacturers and fuel suppliers we will review opportunities for providing the necessary storage and refuelling facilities needed to increase the usage of SAFs by our airlines, with an ambition to be in line with Government policy.

However, we recognise that SAFs are low carbon, and in order to reach the longer-term goal of 100% emissions savings we are therefore also committed to supporting the development of zero carbon aircraft technologies. These technologies are at an earlier stage of development but there is an emerging consensus within industry and Government that hydrogen may be the enabler of Zero Emission Flight. From the work the airport has undertaken to date with partners, it is an area that has significant potential, with greater scalability in the medium term on the short and medium-haul flights of relatively smaller aircraft that London City Airport specialises in. The airport welcomes the publication of the Government's British Energy Security Strategy in which it commits to support the increased production of hydrogen in the UK, which has the potential to help shape and support this emerging market.



Images clockwise from top left: E195-E2; Energia Electric 05; Eve_UAM Flight over London

The future of flight

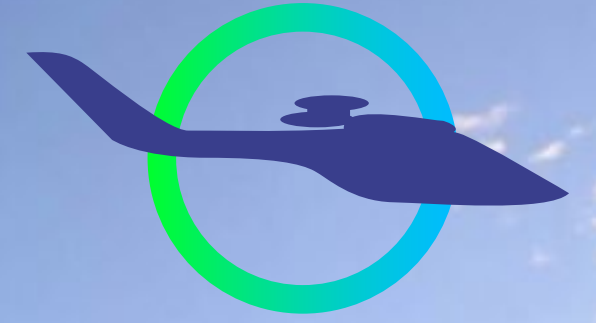
We are involved in a series of innovative future of flight consortia and continue to take an active part in cross-industry collaborations to promote research and development for future airport infrastructure.

Our current contribution to the future of flight focuses on the following:

- Supporting a whole aviation system approach for generating models of how zero carbon aviation could be introduced across the UK domestic market, and which technologies will play a role at what points. This includes exploring the key questions for airports looking to introduce zero carbon aircraft, including physical infrastructure requirements, aircraft design, air traffic management considerations, public attitudes, and commercial viability.
- Preparing for sustainable urban air mobility (UAM) using electric air taxis, also called electric vertical take-off and landing vehicles (eVTOLs). These are a new type of clean, quiet aircraft, powered by electricity or hydrogen, which can carry passengers over short distances, promising to transform urban mobility and intra-regional flight. This includes building an integrated ecosystem that enables the industry to scale and identify the regulatory barriers and operational gaps regarding the safe integration of UAM in London and across the country.

- Reviewing the overall technical and commercial viability of future zero-carbon emission aircraft and developing feasibility assessments of airport and local infrastructure requirements for their operation and assessing options available in the Royal Docks, as well as potential supply options involving delivery through the Estuary and along the River Thames.

Through Government sponsored programmes like Jet Zero and Future of Flight significant progress has been made. However, being a leader in this technological innovation will require sustained industrial collaboration. London City Airport is ready to work with existing and new partners so it can maximise the potential of Zero Emission Fuels, not only for flight, but for jobs and research and development opportunities at and around the airport.





Pillar 2: Improving our Environment



This section focuses on our actions to minimise, and where possible, eliminate impacts on the local environment, with particular focus on enhancing measures already in place to manage noise, air quality and water pollution, as well as providing further commitments in waste reduction and increase in biodiversity. This pillar aligns with the following SDGs: **9** Industry, Innovation and Infrastructure; **11** Sustainable Cities and Communities; **12** Responsible Consumption and Production, **13** Climate Action.

OUR COMMITMENT

We have a responsibility to minimise the impact of London City Airport's operations on the environment and the local community, improving the quality of life for local residents and the natural environment surrounding us. Aligned with priority areas from the Environment Act 2021 and policy makers such as the Institute of Environmental Management and Assessment (IEMA) and the Science Based Targets initiative (SBTi), we are committed to delivering the following:

- **Eliminate all avoidable single-use plastics by 2025 generated by our staff and tenants.**
- **Be a zero-waste airport by 2030 by reusing and recycling 100% of our non-hazardous materials generated by our staff and tenants.**
- **Increase investment in local biodiversity projects and demonstrate a net gain for any future airport development projects by 2026.**
- **Further develop climate assessments and plans for future weather conditions by 2023 to enhance the resilience of our infrastructure and operations.**



Our record so far

Managing noise:

Our central location means that local people live very close to the airport. We adhere to the most stringent noise conditions and have the quietest operating environment of any airport in the UK. Operational measures implemented to reduce aircraft noise include use of steep approach angle for all arrivals to help keep aircraft higher for longer; an eight-hour night time curfew; a weekend respite period; a quota count system for daytime operations; and a scheme to fine airlines if noise levels are exceeded by aircraft on departure, with all proceeds directed to fund community projects.

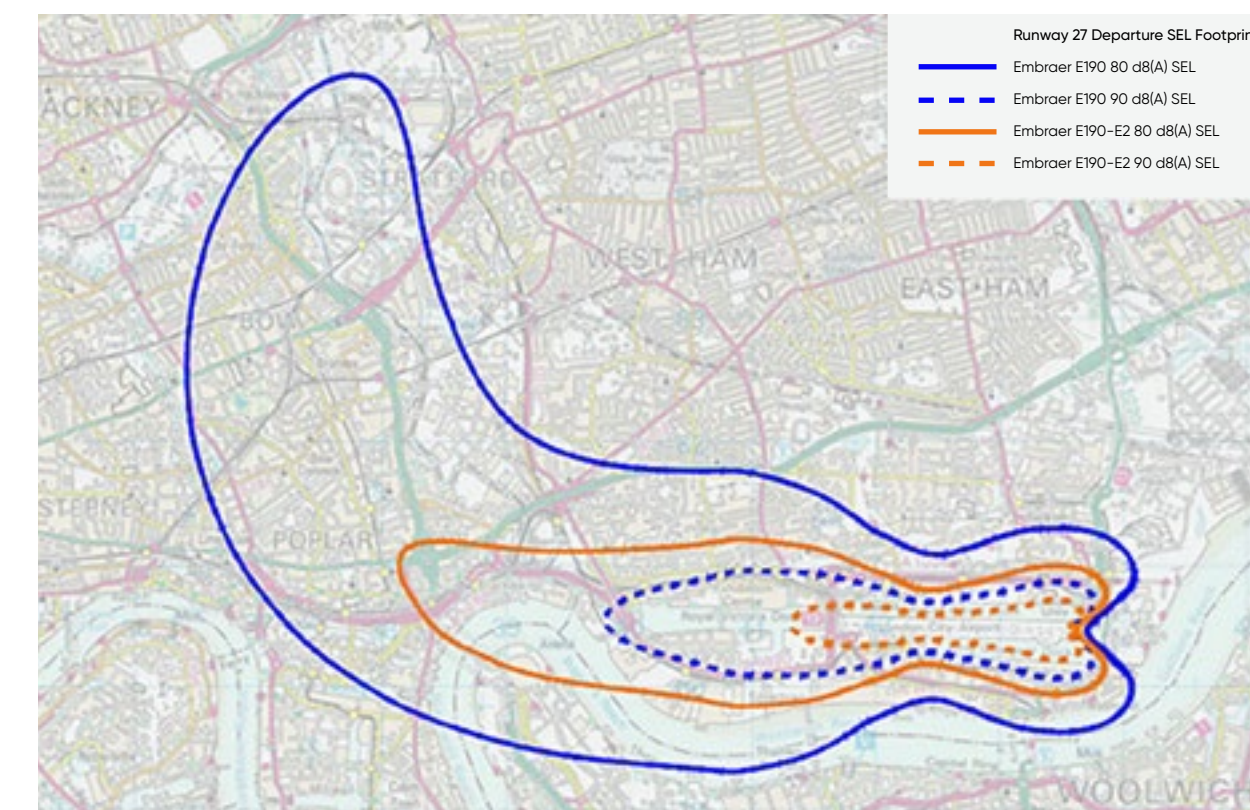
Case Study: Incentives and Penalties Scheme

In 2017 an incentives and penalties scheme was introduced at London City Airport, with the aim to incentivise the airlines to operate as quietly as possible on departures. The scheme operated on a trial basis for 12 months, following which financial penalties started being regularly applied to airlines that exceed a noise threshold when passing over noise monitors situated 4.5km from the runway. The money is then passed into LCY's Community Trust Fund, ensuring that the benefits are passed onto the local community.

In addition to penalties being applied, an incentives scheme was also put in place to further encourage quiet operating procedures. Credits are awarded to airlines that registered below a low noise threshold when passing over the noise monitors, and credits are removed when a higher noise threshold is exceeded. At the end of each year, credit totals are calculated and a league table is produced, rating the airlines' overall performance. The airline that tops the league table is invited to join the board of the Community Trust Fund for a year to help distribute the allowance to the local community.

Throughout this decade, as our airlines replace existing aircraft with cleaner, quieter new-generation aircraft, the noise impacts of airport operations will reduce. We welcomed the first of these new-generation aircraft to London City Airport in 2017. In June 2021 the Embraer E190-E2, which has the lowest noise levels of all new-generation single aisle aircraft, and offers a significant improvement compared to the previous generation and other aircraft types, was certified for operation from London City. It began operations in September 2021. This aircraft achieved a reduction of a third of the airport's noise contour area for departure noise levels, and improvements were also reported for the arrival noise. The E2 also has 17% lower carbon emissions than the aircraft that it will replace. To enable the airport to welcome more new-generation aircraft, significant infrastructure investments have been made, including the provision of eight new stands that can accommodate new generation aircraft.

Embraer E190 versus E190-E2



Our record so far

Managing air quality:

At London City Airport there have been no recorded breaches of UK air quality objectives since 2006. We know this is an important issue, particularly in London, and we will continue to monitor pollutants from vehicles as well as aircraft operations (including aircraft taxiing time and engine running) to manage air quality impacts carefully. Some of the changes we will be making, such as decarbonising the vehicle and ground support equipment fleets, and increasing the percentage of journeys by sustainable transport modes, will help to further improve air quality impacts for both CO2 and non-CO2 emissions. All of our airside vehicle fleets were fully ULEZ compliant from the end of 2021 and two thirds of our suppliers' vehicles with permanent permits are currently meeting the same emissions standards. We have recently switched from diesel to battery-powered mobile electrical ground power supplies to aircraft stands in order to minimise the need for aircraft to run their engines whilst on the ground and reduce air pollution as well as noise impacts.

Case Study: Electric Mobile Ground Power Units

Ground power is required by aircraft whilst on a stand in order to power essential equipment such as lighting whilst passengers depart and embark an aircraft. If ground power was not available then power units on board the aircraft would be required, burning excessive amounts of fuel. Prior to 2021, around half of LCY's aircraft stands used diesel-run units to provide ground power. Whilst these units used less fuel than the power units on board aircraft, they still generated noise, emitted air pollutants and burnt fossil fuels.

In 2021, all of the diesel units were replaced with electric mobile ground power units. These are battery units that are recharged using LCY's renewable electricity supply which not only eliminates the carbon and air quality impacts associated with the diesel units but also significantly reduces the noise emitted.

The local natural environment: We support the protection and recovery of nature in the environment surrounding the airport. We have provided artificial habitats for fish in the King George V dock adjacent to our runway and supported nature conservation and biodiversity projects in the local community while continuing to guarantee the safety of our operations.

Waste: We have been diverting all of our operational waste away from landfill into recycling or recovery. We were the first UK airport to ban plastic straws and trialled the use of compostable security bags in 2021 as part of our efforts to innovate and eliminate all single use plastics from our airport.



What's next?

We want to build on our successful management of the airport and the impact of its operations on the natural environment, and focus on the following issues in future:

- Adopting a circular economy approach to our operations: we will continue to improve our approach towards waste, starting with plastics by eliminating unnecessary items, innovating to ensure all plastics are reusable, recyclable or compostable, and circulating all the items we use keeping them out of the environment.
- Protecting and restoring nature by identifying potential opportunities to support biodiversity improvements in the local area and deliver biodiversity net gain for all future developments.
- Increasing partnerships and investments to biodiversity, specifically for local projects to deliver environmental, social and economic benefits to the local area, to a minimum of £25,000 per annum.
- Providing more information on noise impacts specific to our airport operations, presented in a way that is accessible for all of our stakeholders, including local residents.
- Keeping abreast of new research and emerging evidence on air quality impacts on health, including Ultra Fine Particles and sharing outcomes with relevant local stakeholders.



Managing noise and air quality: Despite the significant mitigation measures already in place for noise and air quality, airport operations inevitably result in some impacts. London City Airport aims to be open and transparent about this, and will develop an online community platform to better communicate local noise impacts as well as track and report both CO2 and non-CO2 emissions regularly. In addition, we will continue to certify next-generation aircraft, such as the Embraer E2-195, which will be significantly quieter and with lower carbon emissions.

Climate resilience and adaptation: As a result of global temperature trends and the impacts of climate change, we expect the UK to be affected by increased heavy precipitation events, the increase of annual and daily maximum temperatures, and wind directions changing more frequently and rapidly. Following the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations we will develop further assessments to consider risks and impacts associated with climate changes, including flooding, and plans for future weather conditions to ensure we maintain our energy security as well as market and infrastructure stability.

The local natural environment: We are keen to play our part in reversing the significant decline in nature in the UK in recent decades. That is a challenge for any airport given the need to balance safety with increased local biodiversity. We will look at opportunities to deliver local

and regional initiatives promoting biodiversity, climate resilience and adaptation, and increase the support, including funding, that we give to local projects. We aim to build partnerships with local wildlife management companies and sites, creating wildlife corridors where possible aimed at protecting and restoring habitats and providing access to green spaces and educational activities for local people to raise awareness of biodiversity and its social and environmental benefits.

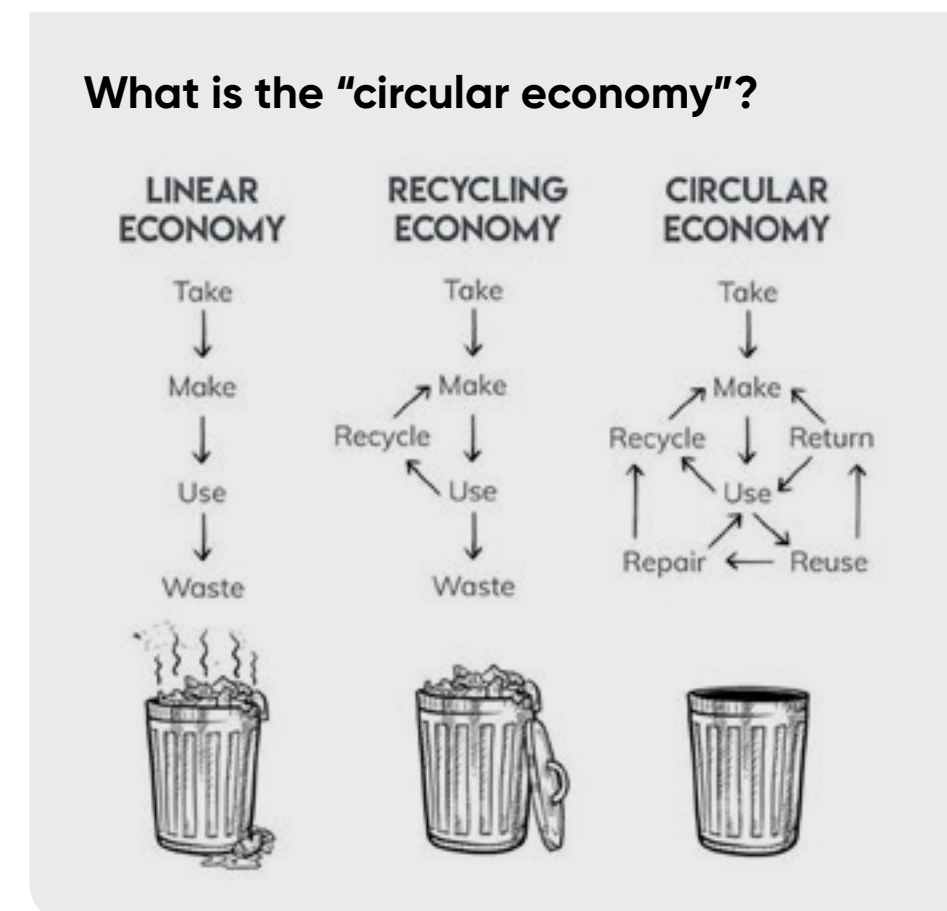
We are committed to go beyond compensation to deliver enhancement that will contribute to net gain in biodiversity for any of the future buildings and development focusing on local and regional projects and, where possible, on-site measures.

Environmental Awareness: We also want to make sure that our work to protect and improve our natural environment is shared with and supported by our staff through volunteering activities. In addition, we will seek to engage our passengers so they can better understand the actions we are taking to restore nature as well as helping them to play their part in creating a richer and more diverse natural environment.

Waste: In 2022, we will be developing a new Circular Economy and Waste Strategy and will commence implementing the measures set out in that. We will continue working with our staff and onsite partners to raise awareness, identify opportunities and set up standards to minimise the extraction and use of natural

resources by redesigning goods and services to reuse and recycle materials as much as possible. Collaboration and partnership across our supply chain and local stakeholders will be critical to address these challenges. In particular, we will work closely with our concessions to tackle retail and food waste, with our airlines to tackle cabin waste, and with those in our local area and beyond to identify opportunities to work collaboratively, share resources and more effectively identify and encourage innovation. Our aim is to eliminate all single-use plastic from within our airport by 2025 and become a Zero Waste Airport by the end of 2030.

In addition, we will continue improve our data collection with the scope of identifying wasteful use of water within the airport. We will work with our onsite partners to maximise water reuse and recycling with the aim to reduce the use of potable water within the airport.





Pillar 3: Helping East London grow and prosper



This section focuses on London City Airport’s actions and commitments to make a positive contribution to the local economy and social fabric, in particular by supporting skills development and the creation of job opportunities for our employees and local people. This pillar aligns with the following SDGs: **8** Decent Work and Economic Growth; **9** Industry, Innovation and Infrastructure.

OUR COMMITMENT

London City Airport plays a vital role in the economy of London, and East London in particular, by connecting business and leisure passengers between London and regions across the UK, Europe and the world – and as a major employer in the London Borough of Newham. As we recover from the impact of COVID-19, we will focus on boosting economic activity in the area and creating new opportunities for local people and businesses. We want to be an exemplar local employer that represents its community, invests in wellbeing and develops talent. We are committed to delivering the following:

- **Supporting local people by creating more jobs, increasing investment for local community groups and requiring all on-site partners to pay the London Living Wage by 2026**
- **Working with partners to explore opportunities to invest in an onsite Aviation Innovation, Training & Skills Centre by 2030**
- **Introducing a policy for airport staff to contribute two days per year to volunteering in the local area by the end of 2022**
- **Working with partners to maintain and increase employment opportunities for local residents at the airport and upskill the existing workforce**
- **Increasing our Community Fund**
- **Enhancing our Diversity & Inclusion programme and reporting by 2023**



Our record so far

Creating Jobs:

We are one of the biggest private-sector employers in the London Borough of Newham, with over 2,200 people employed on site in 2019, two-thirds of whom were living in the local area. In 2019, almost one-third of employees newly recruited by London City Airport were from Newham. Despite a short-term restructuring as a result of the COVID-19 pandemic, we expect the number of people employed at the airport to rebound as passenger numbers increase and the aviation industry recovers from the crisis.

Supporting our Staff:

It is not just creating jobs that is important to the airport, it is also ensuring our staff are supported and invested in. The airport has an established track record in this area: investing in employee health care, including mental health support, and ensuring, despite operational constraints, that we look to be as flexible as possible so our people can enjoy a healthy work-life balance.

Case Study: LCY Community Fund

The Community Fund launched in May 2019 and has awarded grants of over £270,000 to 100 local charities and not-for-profit organisations across East London.

It has supported organisations as diverse as local Foodbanks, refugee support to healthy eating and employability support. A video that demonstrates the work of the Community Fund can be viewed here: <https://www.londoncityairport.com/corporate/responsible-growth/community-fund/>

Benefiting the Local Economy:

As a London Living Wage employer and a Mayor of London Good Work Standard certified employer, we pride ourselves on not only creating opportunities for local people

but paying a fair wage. Paying beyond the London Living Wage helps the airport attract a higher proportion of staff from the local area. This makes our airport more resilient and helps us reflect the energy, vibrancy and diversity of our local area when welcoming people from around the world. Through our domestic supply chain, the airport generates jobs and opportunities for businesses and SMEs locally in East London and across the UK. This is supported by our annual Royal Docks Meet the Buyer events which have engaged local businesses on opportunities at the airport and with our partners.

Investing in our Local Community:

The airport's Community Fund was launched in 2019 and has awarded grants ranging from £300 to £3,000 to charities and not-for-profit organisations to enable significant and positive change for communities near London City Airport. Applications are evaluated by a board of Trustees from the airport and representatives from the local community to ensure they are assessed with local insight and expertise to maximise the greatest possible benefit goes to the community. London City Airport also has a track record of working with local schools to inspire young people. Our headline STEM in Aviation Day engaged up to 500 local students in 2019, demonstrating the value of STEM subjects not only to children but also to the wider aviation industry as it plans for a sustainable future.

Case Study: Women in Aviation

Improving the gender balance of the industry and the well-known skills shortage is a priority in aviation, and at London City Airport we are committed to recruiting locally and making the industry more attractive to young people on our doorstep.

The 'Women in Aviation' programme, delivered by charity partner 15billionebp, is part of the airport's wider agenda to create a better gender balance across the business, and show how the sector offers an attractive career path for young women, including those from BAME communities. The programme has been a steppingstone for young women in the local area, to learn about roles within the aviation industry and also explore how the industry is shaping its sustainability agenda in the current landscape. Since 2019, his programme has enabled 600 young women to get an insight into the aviation industry and spark an interest in aviation role.



What's next?

The airport is a major economic hub and employer in the London Borough of Newham and the surrounding boroughs of East London. Our recovery will focus on boosting economic activity in the area, and also, as the airport embarks on a significant programme of decarbonisation, to create opportunities in the green economy for local people. We will be focusing on the following:

- **Supporting local economic growth:**
We will drive local economic growth and innovation and maximise our partnership opportunities with local businesses.
- **Providing high-quality opportunities for local people:**
We will work with our partners and local stakeholders to provide high-quality jobs and help local people develop their skills, creating opportunities for long-term, rewarding careers whilst also providing a mature and developed wellbeing agenda. We will support the creation of an Aviation Innovation, Training & Skills Centre.
- **Supporting our local community:**
We will increase our engagement and involvement with our local community, identifying where we can help local organisations thrive and prosper.
- **Being a representative, aspirational business:**
We will expand our diversity and inclusion programme, maintaining our record in relation to equality in Gender Pay.



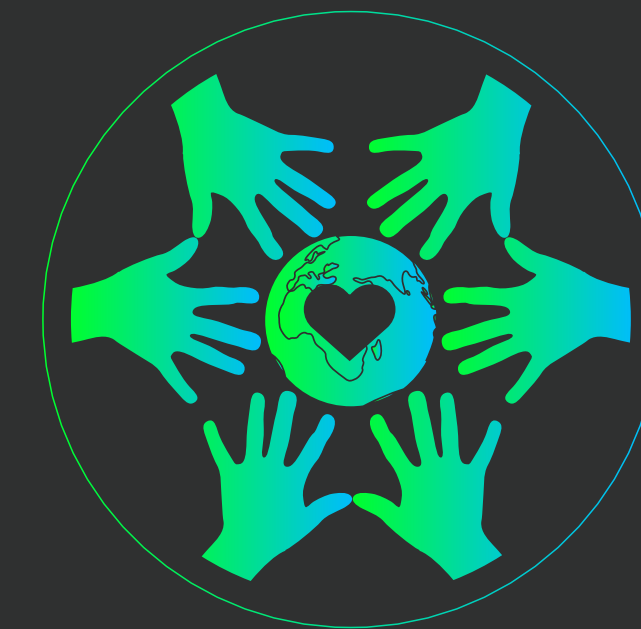
Supporting local
economic growth



Providing high-quality opportunities
for local people



Supporting our
local community



Being a representative,
aspirational business



Supporting local economic growth:

We will provide new opportunities for local and sustainable businesses, by promoting and supporting the purchase of local goods and services, and we will also work with our partners, new and existing, to ensure they too are supporting our aspirations in this area. We will also restart our Royal Docks Meet the Buyer event this year. We also believe all of the businesses based on site at the airport can pay the London Living Wage by 2026.

Providing high-quality opportunities for local people:

As an airport that is committed to innovation and achieving net zero, we will continue to review opportunities to create positions at the airport that will help us achieve that mission and increase employment prospects for local people. Accordingly, we will look to publish a Future Jobs Strategy so we can inspire local talent to come and work at the airport. We will also work with our business partners and local stakeholders to help increase employment opportunities as the industry recovers from COVID-19. This will include working to get employment back up to 2019 levels as demand returns. We will look to create more apprenticeship opportunities not only at the airport but also for local small and medium-sized enterprises.

We understand that some people in our community, particularly the young, will need support to develop the skills needed to be successful in the economy of the future. That is why the airport will resume its work on raising levels of STEM attainment in local schools and will create aviation-relevant resources and events for all schools in East London.

We also welcome the opening of the new International Air and Space Institute (IASTI) in the Royal Docks. Collaboration with the IASTI will help create pathways into jobs and apprenticeships at the airport as well as help provide students with critical knowledge and skills to prosper in new low carbon aviation opportunities.

We want our airport to be at the heart of this story which is why we intend to work with partners to examine opportunities for an onsite Aviation Innovation, Training & Skills Centre. The Centre would have the potential to support on-site partners with their initiatives as well as support research and development projects focussed on zero-emission flying.

Supporting our local community:

This objective is central to everything we do at the airport. We want to support the Mayor of Newham's Community Wealth Building

Strategy by being an exemplar employer that represents the local community, supports their wellbeing and develops their talent and careers. From 2022 all airport staff will contribute two days per year to volunteering in the local area as we extend and broaden our community engagement.

The airport's Community Fund has donated £270,000 to over 90 local good causes since 2019. Our ambition is to significantly increase the annual £75,000 funding during the lifetime of the roadmap so that we can play an important role in not only the recovery from COVID-19, but in helping our community realise its full potential.

A representative, aspirational business:

Going forward, as part of our yearly roadmap reporting, the airport will expand its diversity and inclusion programme, publish diversity and inclusion metrics, and maintain our record in relation to equality in Gender Pay. While the airport is a medium-sized business, we will look to increase the number of career progression programmes available for our staff so they can achieve their full potential at London City Airport.



Glossary

Airport Carbon Accreditation: A global carbon management certification programme for airports launched by the ACI Europe in 2009. It independently assesses and recognises the way airports manage and reduce their carbon emissions through six levels of certification. To apply for certification at one of these levels, airports must have their carbon footprints independently verified in accordance with ISO14064 (Greenhouse Gas Accounting).

Biodiversity Net Gain: An approach to development that aims at delivering measurable biodiversity improvements by creating or enhancing natural habitat. This can be achieved onsite, offsite or through a combination of both measures.

Circular economy: As defined by Ellen MacArthur Foundation, "The circular economy is a systems' solution framework that tackles global challenges like climate change, biodiversity loss, waste, and pollution". Unlike the linear economy, where natural resources are turned into products which are ultimately destined to become waste, the circular economy improves the productivity of these resources by reusing, repairing, refurbishing, remanufacturing and recycling them to create a closed-loop system, and consequently minimising the use of resource inputs and the creation of waste, pollution and carbon emissions.

Net Zero: The Intergovernmental Panel on Climate Change (IPCC)'s scientific definition of net zero is when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period, which is set at 2050 by the Paris Agreement.

Net Zero Emission Flight: Zero Emission Flight (see definition below), or low emission flight in combination with sustainable aviation fuels with at least 100% lifecycle emission savings or offsetting against greenhouse gas removals.

Sustainable Aviation Fuels: A wide range of sustainable alternatives to conventional fossil-derived kerosene, which have the potential to reduce carbon emissions.

Zero Emission Flight: Flight which does not emit any tailpipe carbon emissions. This could be achieved through a range of electric- or hydrogen-based propulsion technologies. This definition does not account for carbon emissions during manufacturing or aircraft maintenance.

Zero Waste: According to the Zero Waste International Alliance (ZWIA), zero waste is "The conservation of all resources by means of responsible production, consumption, reuse, and recovery of products, packaging, and materials without burning and with no discharges to land, water, or air that threaten the environment or human health." This is more a longer-term ambition than an immediate goal as the product designs, novel materials, industrial processes, business models, regulatory landscape, and public infrastructure do not yet exist at the scale required to achieve it.

Zero Waste to Landfill: The specific goal of achieving at least 99 percent of generated waste being diverted away from landfill, which means that all waste produced is either reused, recycled, composted, or sent to energy recovery. This goal can be independently verified in the UK by the Carbon Trust.



Above and Beyond:

For more information visit sustainability.londoncityairport.com

Investment
Innovation
Responsibility