



# Carbon and Climate Change

2024 Update



Our second Decade of Change sets out firm commitments for carbon emissions by 2030. Alongside the publishing of the Gatwick Annual Report and financial statement in 2023, we announced the shift of our Net Zero target from 2040 to 2030. This reflects our commitment to decarbonisation.

## Goal 6: Airport Emissions

By 2030:

- Gatwick will achieve Net Zero for GAL scope 1 and 2 emissions.
- Gatwick will source 50% of airport network electricity, and 50% of heat, from UK renewable sources via onsite generation and direct purchase agreements.
- All Gatwick and airport duty vehicles, ground support equipment and mobile construction equipment will meet zero or ultra-low emission standards.

## Goal 7: Aircraft and Surface Access Emissions

By 2030:

- Gatwick will achieve and maintain, as a minimum, Airport Carbon Accreditation level 4+ or equivalent.
- Gatwick will reduce landing and take-off (LTO) emissions per air traffic movement and per passenger.
- Gatwick aims to achieve 60% passenger and staff travel to the airport by public transport and zero and ultralow emissions journey modes.

### 2023 in numbers



27,247 tCO<sub>2</sub>e

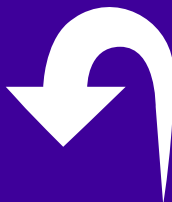
GAL scope 1 & 2 emissions

down 27.7% from 2019

67% Reduction

in scope 1 & 2 emissions

vs the 1990 baseline



Level 4+ ACA accredited

Aircraft landing and take-off (LTO)

Down 6.3% from 2019

400,109 tCO<sub>2</sub>e



0.67kg CO<sub>2</sub>e per passenger

vs 3kg CO<sub>2</sub>e per passenger in 2010



For full 2023 performance please visit:

<https://www.gatwickairport.com/company/sustainability.html>



## Introduction

In 2023, we accelerated our Net Zero (scope 1 & 2) target to 2030, ahead of any 1.5-degree pathway. Following this announcement, as part of our Development Consent Order application for the Northern Runway Project, we have prepared a Carbon Action Plan (CAP). This includes commitments to reduce greenhouse gas (GHG) emissions relating to aviation, construction and airport buildings and ground operations. The CAP also includes a “toolbox” of initiatives which we may deploy in order to achieve our commitments.

## In 2019 Gatwick signed the Airports Council Europe pledge to reach net zero for direct emissions before 2050. In our Second Decade of Change, we decided that we want to achieve this goal by 2030.

In addition to reducing our own emissions, we work with our airport partners to reduce emissions from aircraft on the ground and in the take-off and landing cycle, from airport vehicles and from surface transport used by staff and passengers to reach Gatwick.

Indeed, we recognise that collaboration and working with our on-airport partners is key to achieving our shared sustainability goals. To facilitate this collaboration, in 2024 we launched the London Gatwick Sustainability Forum (LGSF). The inaugural meeting of the LGSF took place in March, with over 70 on-airport organisations invited. The areas of focus for the LGSF will be developed over the coming months.

## Gatwick Airport and Sustainable Aviation

The cross-industry organisation ‘Sustainable Aviation’ published its Roadmap to Net Zero Carbon 2050 in February 2020. This makes it the first aviation industry body in the world to commit to a net zero target. Interim goals published in June 2021 strengthen this commitment to achieving net zero, and the roadmap was updated in 2023.

The roadmap shows that UK aviation can reach net zero CO<sub>2</sub> emissions by 2050 and sustain growth. To achieve this, emissions from aircraft and fuel technologies must be reduced. More efficient operations will also help to achieve this goal, as well as international carbon pricing and offsets.

London Gatwick recently co-funded independent research into the development of sustainable aviation fuel (SAF). The research showed that 14 SAF plants could be running by 2035. This would produce 4.5 million tonnes of SAF by 2050 and contribute a 32% reduction in UK aviation carbon by that time. In October 2021, we partnered with easyJet, Q8 Aviation and Neste to make a proof-of-concept to prove that the current fuel system at London Gatwick is ready to use A1 jet fuel that contains sustainable aviation fuel (SAF). During the UN Climate Change Conference (COP26), flights from Gatwick to Glasgow used a fuel blend containing SAF.

## Climate Change Adaptation Reporting

In 2021, we participated in consultations held by the Department for Environment, Food and Rural Affairs (DEFRA) to prepare for the third round of climate change adaptation reporting by operators of major infrastructure. The third round of reports were due by the end of 2021; our report was provided to DEFRA on 23 December 2021. Round four of climate change reporting will be submitted to DERA by the end of 2024.

Our third-round report is available online at: [Gatwick-Airport-CCAR-Dec-2021-Issue.pdf \(gatwickairport.com\)](#)

## 2023 Carbon Footprint

Gatwick Airport Limited's Scope 1, 2 and 3 emissions are detailed below including a breakdown of each. Our greenhouse gas assessment is independently calculated and verified.

	2021		2022		2023	
Emissions breakdown (tCO <sub>2</sub> e)	Location-based	Market-based	Location-based	Market-based	Location-based	Market-based
Scope 1 direct emissions tCO <sub>2</sub> e	10,163 <sup>1</sup>	-	8,921	-	9,201	-
Scope 2 direct emissions tCO <sub>2</sub> e	13,024	128 <sup>2</sup>	15,830	0	18,047	0
Scope 3 indirect emissions tCO <sub>2</sub> e	136,973	131,087	2,871,524	2,863,915	3,829,465	3,821,153
Total Scope 1&2 direct emissions tCO <sub>2</sub> e	23,187	-	24,751 <sup>3</sup>	-	27,247	-
Total Scope 1,2 & 3 tCO <sub>2</sub> e	160,159	141,377	2,896,275	2,872,836	3,856,712	3,830,354
<b>Scope 1</b>						
Natural Gas	8,202		7,249		6,552	
Vehicle and equipment fuel	619		961		2,162	
Fire training materials (including propane)	36		13		20	
Refrigerant gas	1,306		600		337	
De-icer	-		98.7		130	

Emission Breakdown (tCO <sub>2</sub> e)	2021	2022	2023
<b>Scope 2</b>			
Purchased electricity (location-based)	13,024	15,830	18,047
Purchased electricity (market-based)	128	0	0
Solar	0	0	0
<b>Scope 3</b>			
GAL business travel	48	362	1,315
Other airport operations <sup>4</sup>	10,203	15,198	16,125
Airport staff commuting (estimated)	19,443	38,940	42,014
Homeworking (estimated)	-	-	1,359
Passenger surface access (estimated)	28,646	149,295	182,773
Aircraft take-off and landing (estimated)	76,361	297,631	400,109
Aircraft engine testing (estimated)	2,272	1,207	1,053
Aircraft Climb, Cruise and Descent (CCD) (estimated)	-	2,366,897	3,122,925
De-Icer	-	704	1,431
Non-road construction machinery	-	1,290	797
Purchased Goods and Services <sup>5</sup>	-	-	23,171
Capital Goods <sup>5</sup>	-	-	30,271
Well-to-Tank	-	-	6,121

<sup>1</sup> Greenhouse gas (GHG) emissions calculated in line with the Greenhouse Gas Protocol using BEIS emission factors for the corresponding year and quantifying all six GHGs in terms of carbon dioxide equivalence (CO<sub>2</sub>e).

<sup>2</sup> Temporary electricity contract for the Cophorne development, to July 2021, was not supported by Renewable Electricity Guarantee of Origin certificate.

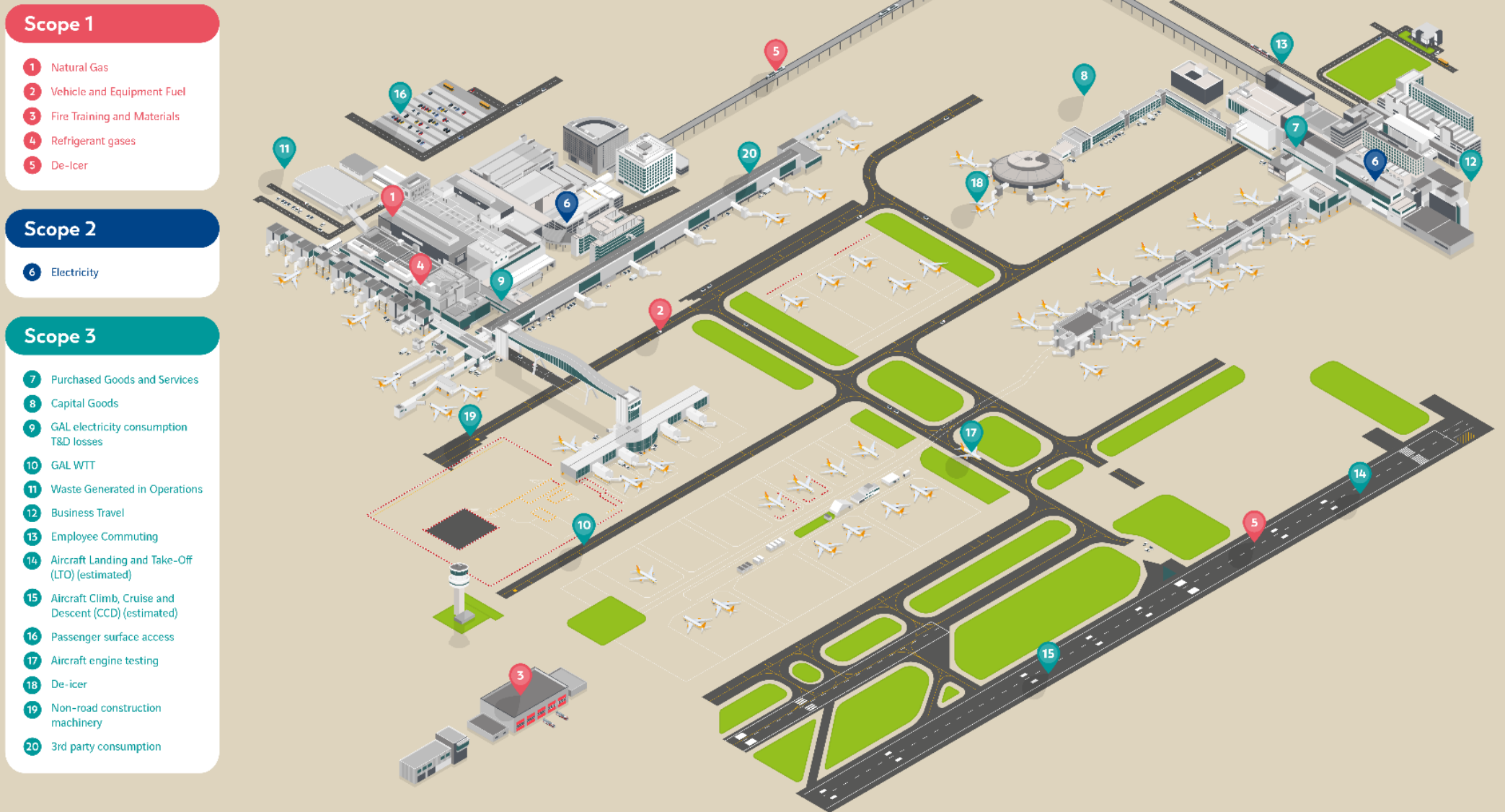
<sup>3</sup> From 2022 onwards, we have additionally included emissions from Deicer usage, as part of our Scope 1 emissions, in accordance with Airport Carbon Accreditation (ACA).

<sup>4</sup> Includes airport third parties ground fuels and electricity, electricity T&D losses, airport water, wastewater and waste systems.

<sup>5</sup> Emissions have been calculated for the top 36 suppliers, accounting for circa 70% of GAL's annual spend.

# Where do our emissions come from?

The map below illustrates emission sources at the airport.





## Carbon reduction initiatives

Since the start of our Second Decade of Change in 2021, GAL has identified the most significant contributions to decarbonising Scope 1 and 2. These priority workstreams are:

- The decarbonisation of heat,
- Improving energy efficiency across control systems and optimising energy use,
- Electrifying vehicle fleet and delivering supporting infrastructure,
- Reducing emissions related to refrigerants and HVAC faults.

The acceleration of our Net Zero Scope 1 & 2 target to 2030 was accompanied by a commitment of over £250 million of capital works in order to support the delivery of the goal. Some projects that have been identified to deliver GALs commitments include:

- Removing 75 boilers and a further 90 gas appliances and providing an alternative heating source for airport buildings,
- Transitioning to 100% LED lighting across all operational areas by 2027,
- Transitioning GAL fleet (400 vehicles) with EV equivalents,
- The introduction of planned maintenance of air conditioning units and the replacement of refrigerant gasses with those with lower global warming potential where possible.

GAL purchases 100% REGO certified electricity, rendering our market-based scope 2 emissions zero. However, we continue to improve energy efficiency and explore on-site renewable generation as part of best practice and following the energy hierarchy. We are looking to deliver 14MWp of on-site solar in addition to developing a power purchase agreement, reducing our demand on UK grid renewable consumption.

### Tackling Surface Access

Increasing airport passenger and staff use of public transport is key to reducing our surface access emissions, and so we continue to invest in our public transport facilities. In 2023 we contributed financially to 20 zero emission hydrogen busses which are now being deployed in the Crawley, Horley and Gatwick Airport area. The route this new fleet serves operates 24/7 and is vital for passengers and airport staff travelling to and from work.



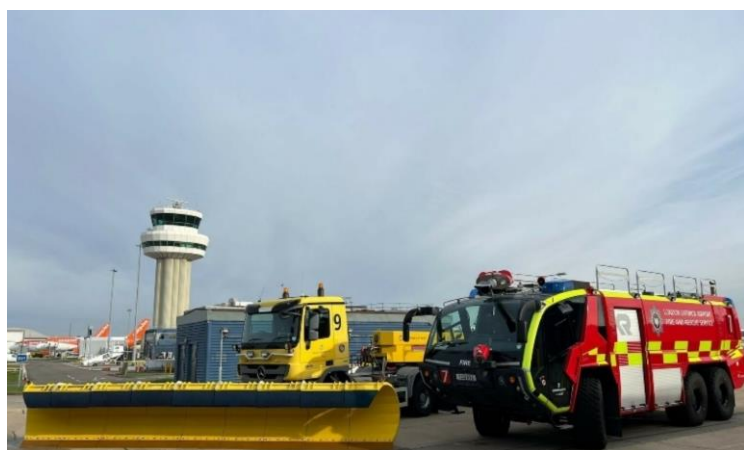
The new London Gatwick station concourse opened in November 2023. This has been a collaborative effort between the airport, Network Rail, Govia Thameslink Railway, Costain and many others over the course of more than a decade to provide a station worthy of an international gateway as significant as London Gatwick.

The new station is improving the passenger experience and, combined with a doubling in frequency of Great Western Railway's service to Reading, will help us reach our 2030 target of increasing airport passenger and staff usage of public transport and zero and ultra-low emission journey modes to 60%.

We have also become the first international airport to open an Electric Forecourt®, a dedicated electric vehicle (EV) charging station, with the new GRIDSERVE facility available for everyone to use.

The brand-new site has 30 electric vehicle chargers available via contactless payment - ideal for passengers, staff, local residents, commuters, or business fleets.

All charging bays are powered by 100% net zero energy, with the fastest chargers capable of adding up to 100 miles of range in 10 minutes. Visitors can also speak to a GRIDSERVE EV Guru to gain advice on which EV may best suit their needs and take the opportunity to test drive an EV.



### Introducing Hydrotreated Vegetable Oil

London Gatwick have cut future carbon emissions from our diesel fleet by 90% by swapping the fuel for Hydrotreated Vegetable Oil (HVO).

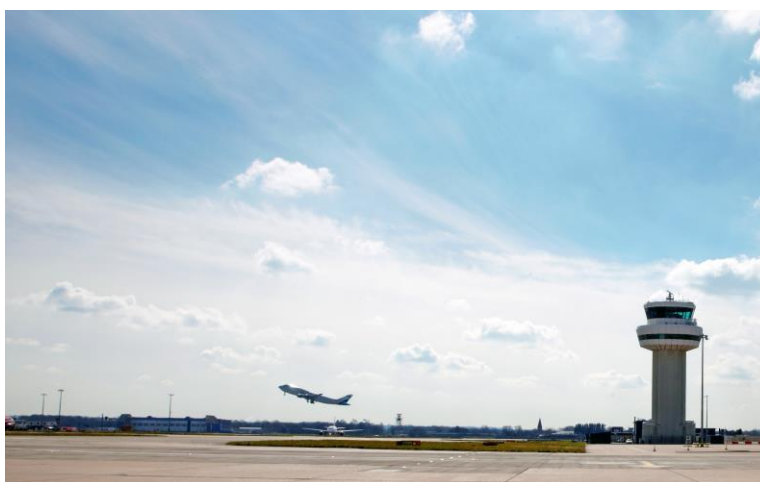
HVO is a low-carbon biofuel made from plant waste, oils and fats making it a more sustainable and lower-carbon alternative to diesel.

All 300 diesel vehicles, 85% of our fleet, are now powered by HVO until they are retired from use. They will then be replaced by electric vehicles as part of the airport's sustainability policy, Decade of Change.

### Sustainable Aviation Fuel

We have developed an approach to Sustainable Aviation Fuel (SAF). The SAF strategy will include workstreams focussing on:

- Measures to support increased SAF supply, including understanding production in South / Southeast England.
- A programme of engagement to increase passenger awareness and understand willingness to pay for SAF.
- An investigation into the "blending point" at which infrastructure changes may be required.
- Continuing to advocate for greater Government support.
- Exploring partnerships to further increase the uptake of SAF.



## Airport Carbon Accreditation Level 4+



Our 2023 achievement of **Level 4+ 'Transition'** of the **Airport Carbon Accreditation scheme** - the only institutionally endorsed, global carbon management certification programme for airports, demonstrates our commitment to decarbonisation. The global scheme independently assesses and recognises the efforts of airports to manage and reduce their carbon emissions through seven levels of certification.

In addition to our historic carbon reduction success, to achieve Level 4+ 'Transition', we were required to set out a policy commitment and action plans to reduce emissions in line with global climate goals. Key to achieving this accreditation was the Stakeholder Partnership Plan, which sets out how we will drive third parties on the airport campus to reduce their emissions, either through their own reduction plans or measures initiated by the airport.

## Carbon Offsetting

Since 2017, we have been offsetting our residual Scope 1, 2 and Business Travel emissions using offsets from the Voluntary Carbon Market (VCM). This has enabled us to achieve Airport Carbon Accreditation Level 3+ and more recently Level 4+.

We understand the challenge sometimes associated with offsets, and believe it is important to be robust and transparent in our approach. We have developed an offsetting strategy and are publishing this Voluntary Carbon Offsetting Statement to aid transparency.

In 2023, we published our carbon offsets within in our Decade of Change performance report for the first time.

Project Name	Project Type	Project Overview	Certification Standard and ID Number	Volume (units)
Saur Urja, India	Reduction (Solar)	Renewable energy project generating clean electricity through five solar power plants. Co-benefits include the generation of employment opportunities.	Gold Standard 7627	7,913
Agua y Paz & Cordillera, Costa Rica	Removal (Reforestation and sustainable forestry)	Reforestation and sustainability forestry project reproducing near-natural forests on degraded grazing lands. In addition to local wildlife benefits, the restored forest helps to replenish water tables, make the soil fertile again, and provides stable and sustainable job opportunities, supporting local economies.	Gold Standard 2913	1,000
Allagash, United States	Removal (Improved Forest Management)	Improved Forest Management project to ensure long-term sustainable management.	American Carbon Registry 754	1,637

NB - Volumes to be offset are based on market-based accounting.

## Monitoring and Reporting

In 2023, GAL published our Decade of Change Roadmaps (available [here](#)) which set out distinct Key Performance Indicators for each Decade of Change goal.

We update performance on all of our Decade of Change goals, including Goals 6 and 7, each year in our Annual Decade of Change Performance Summary. This report also includes the annual Greenhouse Gas Report. The most recent summary, and all historic summaries, can be found on the GAL website: <https://www.gatwickairport.com/company/reports/sustainability-reports.html>

All of the KPIs and the Greenhouse Gas Report reported in the performance summary are verified by an independent third-party.



