Aviation accounts for an estimated 7% of UK carbon emissions and 2% of global carbon emissions, and demand for air travel continues to grow strongly. The challenge is therefore to achieve low-carbon growth. This requires implementation of the correct policy levers by governments, collaboration across the industry on aircraft technology and sustainable fuels, and proactive focus on energy and fuel efficient airport operations.

Gatwick is committed to low-carbon growth. Our Decade of Change strategy set an ambitious 2020 carbon reduction target of 50% below our known 1990 baseline for combined Scope 1 and 2 emissions i.e. from our use of energy and fuel to operate the airport. Our 2020 target is more ambitious than the UK Government’s national target to reduce UK carbon emissions by 51% below 1990 levels by 2025.

In 2017, with 45.6 million passengers, our combined Scope 1 and 2 emissions were 42.6% lower than the 1990 baseline, when Gatwick had 20.4 million passengers a year. On a per passenger basis, our combined Scope 1 and 2 emissions have fallen even more significantly - by 74.3% compared to the 1990 baseline.

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.

For our 2017 Decade of Change Performance Report please visit www.gatwickairport.com/sustainabilityreport
RENEWABLE ELECTRICITY

Our Decade of Change strategy also sets a target for 25% of our energy to be from renewable sources by 2020. Since 2013, we have purchased renewable electricity certified under the Renewable Energy Guarantee of Origin (REGO). This means that, together with a small amount of on-airport solar energy generation, the renewable share of our total energy consumption is presently just over 70%. Our new electricity contract continues our commitment to renewable electricity with 100% UK sourced wind and biomass electricity.

CARBON NEUTRAL ACCREDITATION

Airport Carbon Accreditation is an independently administered initiative launched in 2009 by ACI EUROPE, the European region of Airports Council International, the only worldwide professional association of airport operators.

Gatwick Airport Limited has undertaken Airport Carbon Accreditation for several years. Our most recent certification, for 2017, is at ‘Neutral’ level.

This maintains the ‘Neutral’ certification we achieved for 2016. Accreditation at ‘Neutral’ level requires:

- a verified carbon footprint including scope 3 emissions
- ongoing reductions in direct emissions
- engagement with airport partners to reduce their emissions at the airport
- offsetting of our remaining Scope 1 and 2 carbon emissions to show the airport’s commitment to achieving carbon neutral operations for all emissions over which the airport has control, using internationally recognised offsets.

As in 2016, we achieved the Airport Carbon Accreditation ‘Neutral’ certification for 2017 through our purchase of 100% renewable electricity for the Airport, and by offsetting our Scope 1, residual market-based Scope 2, and Scope 3 business travel emissions (totalling 11,100 tonnes CO₂e) with Gold Standard carbon credits for the Kar-demir Bozyaka wind farm project in Izmir province, Turkey. This is the same project for which we purchased carbon offsets for 2016.

We selected the Kar-demir Bozyaka wind farm project for its proximity to Izmir, a city that for centuries has been a centre of trade, travel, art and learning. As international tourism is a major component of the Izmir regional economy, contributing to the area's renewable energy transition through our carbon offsets represents a good alignment with our sustainability agenda.

The Kar-demir Bozyaka wind farm project comprises five turbines generating on average 34,690 megawatt hours of renewable electricity per annum. The wind farm is grid-connected and displaces traditional sources of energy such as coal. The project employs local staff and material supplies such as foundations, cables and access roads have been locally sourced. The project's emission reductions and its additionality have been independently verified.

The Gold Standard registry, confirming the retirement of the credits purchased by GAL for 2016, is available here.

The registry link for the credits purchased by GAL for 2017 will be available in July.

GATWICK CARBON FOOTPRINT

We calculate and report our annual carbon footprint according to the Greenhouse Gas Protocol Guidelines:

CONTROL
- Emissions on-site, or an associated process, from the combustion of fossil fuels, i.e. gas, oil, LPG, refrigerants and company-owned vehicles

SCOPE 1
- Emissions associated with the use of electricity imported from the grid or from a third party supplier of energy in the form of heat or electricity

SCOPE 2
- Emissions as a direct consequence of the use of goods or services provided by the company. Sources include aircraft movements (landing and take off cycle), passenger and staff travel to the airport, airside activities, waste disposal, water, business travel

SCOPE 3
- Emissions as a direct consequence of the use of goods or services provided by the company. Sources include aircraft movements (landing and take off cycle), passenger and staff travel to the airport, airside activities, waste disposal, water, business travel

INFLUENCE

CARBON TRUST CERTIFICATION

Gatwick Airport has been certified with the Carbon Trust Carbon Standard since 2010. Our most recent certification, for “Reducing CO₂ Year on Year” is for 2016 and 2017.
2017 CARBON FOOTPRINT

Our carbon footprint is independently calculated and verified. The 2017 results are reported here alongside comparable data for 2010 and for 2016.

<table>
<thead>
<tr>
<th>Emission source</th>
<th>2010</th>
<th>2016</th>
<th>2017</th>
<th>% change 2016 to 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passengers</td>
<td>31,353,547</td>
<td>43,136,800</td>
<td>45,561,700</td>
<td>+5.3%</td>
</tr>
<tr>
<td>Air traffic movements</td>
<td>240,505</td>
<td>280,089</td>
<td>285,271</td>
<td>+1.8%</td>
</tr>
</tbody>
</table>

DATA FOOTNOTES

Baseline: Our 1990 baseline of 82,843.5 tCO₂e was constructed using 1992-95 data. The 1990 baseline does not include emissions related to refrigerant gas losses due to non-availability of data. However, this data is included in our annual reporting on carbon emissions since 2008, and in our % reduction to date against 1990 baseline.

1 GAL Fuels and Fire Training includes diesel, gas oil, unleaded petrol, LPG used in GAL vehicles and plant, propane and materials used in fire training.

2 The Greenhouse Gas Protocol guidelines on Scope 2 reporting provide for 'dual reporting' of electricity emissions using a location-based method (i.e. average emissions intensity of grids on which consumption occurs) and a market-based method (i.e. reflecting emissions from electricity that has been purposefully chosen, such as certified renewables supply). Under the latest GHG Protocol guidelines, the latter can be reported as zero emissions. We report Scope 2 emissions using both methods. The location-based approach enables comparability with previous reporting in the context of our Decade of Change targets.

3 Using then applicable Defra emissions factor guidance (updated in 2011).

CARBON REDUCTION INITIATIVES

Through our Fly Quiet and Clean collaboration with our airline partners, we continue to bring about reductions in emissions from aircraft using the airport. This is being achieved through operational practices and the retirement of older aircraft and the introduction of significantly more fuel efficient – and quieter - modern aircraft and engines.

Energy efficiency continues to be a priority focus to reduce carbon emissions from operations within our direct control, such as our terminals and office buildings. In 2017 we completed phase 2 of the South Terminal boiler plant decentralisation programme and three large scale terminal lighting upgrade projects. Our integrated investment in energy efficiency continues as part of the Capital Investment Plan, including upgrading fabric, HVAC, lighting and control systems.

Our onsite biomass boiler converts aircraft cabin waste and other organic matter to renewable energy used onsite as the fuel for our Recycling Facility’s heating process as part of a self-fuelling cyclic process.

Gatwick is also investing in electrical vehicle infrastructure for airport operations and public transport.

GAL Fleet light and medium duty vehicles that can be replaced with operationally suitable electric models are being replaced at the end of their life cycles. Gatwick is also trialling the Volkswagen e-Crafter van in pre-production, the first UK airport to do so.

Already 40% of airfield ground services equipment at Gatwick is electric, including baggage tugs and a growing number of push back tugs and high-loaders.

Gatwick is the first UK airport to take up the Bluecity electric car sharing service with ten bays on the South Terminal forecourt. In 2018/19 we will be implementing further initiatives with airport partners.
SUSTAINABLE AVIATION CO2 ROADMAP 2050

Gatwick Airport is a member of Sustainable Aviation, which brings together the main players from UK airlines, airports, manufacturers and air navigation service providers to collaboratively find ways to ensure sustainable growth.

Sustainable Aviation’s updated CO2 Roadmap was published in December 2016 at a reception in Parliament, and is available online at www.sustainableaviation.co.uk/road-maps

This document sets out SA’s projection of future CO2 emissions from UK aviation and explains how these could be reduced to 2005 levels by 2050, and halved in net terms. The updated roadmap shows that UK aviation could achieve this scale of CO2 reduction while more than doubling passenger numbers by 2050, through a combination of measures including operational improvements, airspace reforms, next generation aircraft and future generation aircraft, sustainable alternative fuels, and market-based measures.

LIMITING AND ADAPTING TO CLIMATE CHANGE

Climate change requires action locally, at UK and European levels, and globally. We support the global multilateral framework to address climate change, including the Paris Agreement reached in December 2015, and the aviation specific agreement reached in Montreal in October 2016 under the auspices of the United Nations International Civil Aviation Organisation (ICAO).

We share the view that the global market-based mechanism agreed at ICAO – the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) – is an essential means to ensuring global participation in the reduction of CO2 emissions from international aviation. It has a vital role alongside other measures that are already underway, including operational improvements and development of sustainable alternative fuels for aviation.

The CORSIA mechanism is due to begin in 2020. We are also working with our airline and industry partners, and the UK Government, to understand how the European Emissions Trading System (EU ETS) will apply after the United Kingdom leaves the European Union.

The EU ETS already applies to an element of Gatwick Airport’s operations, i.e. gas oil usage and combustion plant. Our EU ETS data and reporting is audited and independently verified on an annual basis.

CLIMATE CHANGE ADAPTATION REPORTING

Gatwick is participating in consultations held by the Department for Environment, Food and Rural Affairs (Defra) to commence preparations for the third round of climate change adaptation reporting by operators of major infrastructure. Defra uses these reports to inform the development of national adaptation policy.

Gatwick’s report under the second round of reporting covers the integration of climate risk assessment in our strategic and operational risk management; and our strategic action plan for climate adaptation, which focuses on flood prevention and alleviation, and on power resilience.

Our report is available online at https://www.gov.uk/government/collections/climate-change-adaptation-reporting-second-round-reports