Gama Aviation

Carbon Footprint reduction plan

2020 -2050 reduction plan

2023 / 2024 planning period

revision v5

05st July 2024

Overview

As a Group we are on a journey to managing our business responsibly across a wide range of stakeholders; from the local communities of which we are a part, to recognising and mitigating the environmental impact of our business activities.

In 2019, we undertook a baseline assessment of our greenhouse gas ("GHG") emissions and through the support of the Group's Chief Executive and Board, have determined the following pathway to net zero.

Pathway to Net Zero

Aviation has been classified as a 'hard to abate' industry. This requires Gama Aviation to set a programme to achieve Net Zero that:

- Reduces our own Group's Scope 1,2 and 3 GHG emissions, mitigating those that remain by using responsible offset schemes that work in accordance with our CSR goals
- Reduce, wherever possible, customer demand-initiated Scope 3 GHG emissions through the incorporation of changes in flight operations, ground operations or any other areas that may reduce fuel burn without compromise to safety
- Offset to mitigate customer demand-initiated Scope 3 GHG emissions, should the prevailing technologies of the planning period be unable to provide the reduction in $C0_2e$ forecast
- Positively influence and encourage the adoption of new, enabling technologies, that are commercially available / feasible to reduce customer demand-initiated Scope 3 GHG emissions
- Supports new and enabling technologies that seek to reduce GHG emissions across the wider aviation sector

Commitment to achieving Net Zero

Given the prevailing technologies open to the highly regulated aviation sector, our ability to influence customer demand initiated GHG emissions, our ability to directly reduce our Group's own emissions and our ability to mitigate emissions via offset, **Gama Aviation is committed to achieving Net Zero emissions by 2050.**

2019 baseline emissions footprint

The Group's baseline emission footprint was undertaken by an independent third-party auditor, Carbon Footprint Ltd, using an ISO14064-1:2018 accredited process. The collected data represents the whole Gama Aviation group including our operations in the US, Middle East, Asia, Europe, and the UK. The table below summarises the GHG emissions for the period 1st January 2019 to 31st December 2019.

Scope	Activity	Tonnes $C0_2e$
Scope 1	Site gas & oil	798.2
	Company car travel	140.2
	Vehicle fuel usage	119.66
Scope 2	Electricity generation & use	2,677.81
Scope 3	Flights	873.05
	Air freight	165.91
	Electricity transmission & distribution	152.8
	Taxi travel	0.43
	Lorry freight	0.26
	Rail travel	0.09
	Ferry travel	0.03
	Bus travel	0.01
	Total (scope 1 & 2)	**4928.45**
Scope 3	Use of aircraft by clients (downstream)	59,526.45
	Total (scope 3 indirect)	**59,526.45**
	Total overall $C0_2e$	**64,454.90**

Additional details relating to the baseline emissions calculations

- The 2019 baseline is the first year of our Group's commitment to GHG reporting
- Measurements are provided at a Group level and include operations within the US, Middle East, Asia, Europe, and the UK.
- The baseline data reflects the full year 2019, a year where air travel was unaffected by the COVID-19 pandemic and therefore represents a baseline (given the data available) of our GHG emissions for a typical year given the prevailing business model / mix of the time.
- The Group's business is based on an availability model; there is no timetable of flights. Flight demand is initiated purely by our client's needs, which directly influences fuel consumption and emissions resulting from such demand. Therefore, we recognise the GHG emissions of those flights separately within Scope 3 as being disconnected to the those generated by the direct activity of our Group. This does not mean we abdicate a responsibility in this regard, on the contrary we actively engage with our clients to assist them in lowering their GHG footprint through more efficient flight operations, fuel technologies or other mechanisms to reduce emissions and mitigate what can't be reduced through offsetting.

2023 Greenhouse Gas emissions

With the lowering of almost all COVID-19 measures internationally, the Group has seen a noticeable increase in CO^2 emissions due to increased customer demand for travel. As we enter a new normalisation period of travel post COVID we are likely to see some change in values over the coming years

Table 1: GHG emissions for reporting year: 1 January 2023 to 31 December 2023 and comparatives

Scope	Activity	T CO_2e 2023	T CO_2e 2022	TCO_2e 2021	TCO_2e 2020
Scope 1	Site gas oil	63	59	344	406
	Site gas	30	18	139	154
	Van travel and distribution	68	29	34	32
	Company vehicles	5.8	32	21	8
	Vehicle fuel	53	71		
	Scope 1 Sub Total	**220**	**209**	**538**	**600**
Scope 2	Electricity generation	614	1,306	1,659	2,086
	Scope 2 Sub Total	**614**	**1,306**	**1,659**	**2,086**
Scope 3	Customer aircraft fuel consumption (downstream)	27,872	36,874	29,184	21,845
	Business travel	2,257	251	344	210
	Home workers (UK only)	0.2	3	23	144
	Electricity transmission and distribution	298	126	90	114
	Other[1]	1,330	1,360	69	55
	Scope 3 Sub Total	**31,756**	**38,614**	**29,710**	**22,368**
Total		**32,591[2]**	**40,129[2]**	**31,907[2]**	**25,055**

[1] Includes commuting, grey fleet, hotel stays, hire cars, air freight, taxi, rail, lorry freight, scope 1 & 2 WTT.

[2] The data for Jet East, which was purchased by the Group in January 2021, has been collected on a best endeavours basis since its incorporation into the Group. On October 18th 2023, Jet East was divested from the Group and all US GHG reporting was curtailed.

Total scope 1,2 and 3 including customer aircraft fuel consumption for 2023

Consumption / emissions	**2023**
Total tonnes of CO_2e	32,591
Total Energy Consumption (kWh)[1]	109,549,643
Tonnes of CO_2e per tonne of jet fuel	6.8
Tonnes of CO_2e per £m turnover[2]	152.3

Scope 1,2,3 excluding customer aircraft fuel consumption

Consumption / emissions	**2023**
Total tonnes of CO_2e excl. customer aircraft fuel consumption	3,845
Tonnes of CO_2e per employee	2.74

[1] Total Energy Consumption includes Electricity, Site Gas, Site Gas Oil, Company Owned Vehicles, Grey-Fleet and Customer Aircraft Fuel Consumption.

[2] 32,591 / (Revenue of $274.4m)/1.24) (includes revenue from discontinued operations)

[3] Average of 1400 full-time employees to 1st November 2023 (not including contractors or temporary staff). This figure was reduced by c800 employees on the sale of Jet East.

Primary intensity ratio comparator

Companies complying with SECR must include at least one intensity ratio in their report. An intensity ratio is a way of defining your emissions data in relation to an appropriate business metric, such as tonnes of CO_2e per sales revenue, or tonnes of CO_2e per total square metres of floor space. This allows comparison of energy efficiency performance over time and with other similar types of organisation.

The Group has determined that it will use tonnes of CO_2e per employee as its primary intensity ratio going forward. Tonnes of CO_2e will use scope 1 and scope 2 plus the previously defined treatment of scope 3 that excludes customer aircraft fuel consumption.

	2023	2022	2021	2020
Tonnes of CO_2e[1] per employee[2]	2.74	2.64	2.42	4.41

[1] Based on the total tonnes of CO_2e excluding customer aircraft fuel consumption.

[2] Average of 1400 full-time employees to 1st November 2023 (not including contractors or temporary staff). This figure was reduced by c800 employees on the sale of Jet East.

Group energy consumption

Total energy consumed by the Group in scopes 1 and 2 is expressed within the table below:

Total energy consumed per emissions scope

Activity	2023	2022	2021	2020
UK Operations Scope 1 & 2 energy consumed (kWh)	4,001,003	3,530,697	3,180,807	5,754,805
Total Scope 1 & 2 energy consumed (kWh)	4,908,762	5,679,332	7,542,746	8,779,550
Total energy consumed (all scopes) (kWh)	109,549,643	137,172,478	115,207,192	97,009,229

TCFD: Energy savings opportunity scheme (ESOS)

The Group has appointed Carbon Footprint Ltd, a leading carbon and energy management company, to assess independently its energy savings opportunity in accordance with the UK Government's requirements. The ESOS audit was carried out in accordance with the BS EN 16247-1 2012 guidelines and applies to Gama Aviation's UK based operations only.

Opportunity	Up-front cost	Potential energy savings (kWh/ann.)	Potential cost savings (£/ann.)	Payback time
Single-engine taxi	Negligible	>280,000	>£40,000	<1 year
FEGP	Negligible	35,000	£5,000	<1 year
Optimisation of Flap Settings	Negligible	25,000	£3,600	<1 year
Optimisation of take-off speed	Negligible	25,000	£3,600	<1 year
Fuel Optimisation	Negligible	<705,000	<£100,000	<1 year
Record hours/mileage data for aircraft efficiency	£10,000	<705,000	<£100,000	<1 year
Luggage Storage Service	Negligible	<70,500	<£10,000	<1 year
Total	**£10,000+**	**Approx. 1.8m kWh**	**Approx £260,000**	**<1 year**

Note: Safety remains the overriding priority for the Group. While the above are noted those items that are related to flight are to be fully reviewed prior to implementation. Once implemented, the Captain will retain full operational control of all phases of the flight and may determine for safety purposes not to implement the opportunities as stated above due to external environmental conditions.

TCFD: CORSIA and ETS commitment

Under the UK and EU ETS, airlines are required to report, verify, and offset their emissions by submitting carbon allowances to the relevant Environment Agencies. Due to changes in the structure of the business, most flight hours are conducted via our Special Mission strategic business unit. These flights are for the purpose of delivering air ambulance or UK Government missions and are currently exempt from the UK ETS scheme.

Business Aviation flying (charter and aircraft management) remains under the threshold for procuring carbon credits or procuring SAF (as a substitute to carbon credits).

We did not incur a liability under CORSIA which remains in its pilot phase.

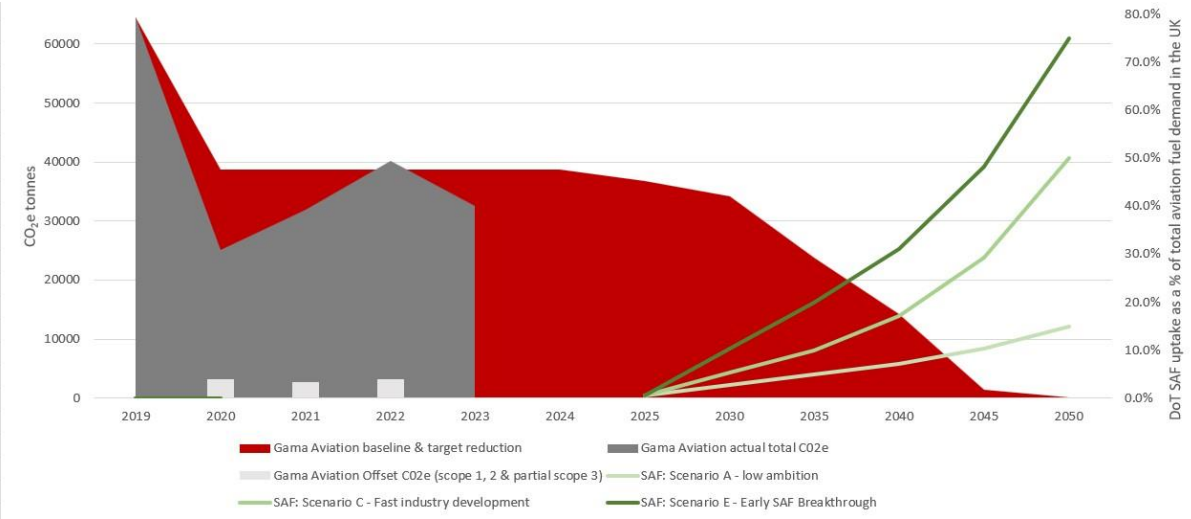
TCFD: statement on the use of offset schemes

In previous years the Board have agreed to the offsetting of emissions (excluding customer aircraft fuel consumption) through a variety of offshore reduction schemes. In 2023, a review took place of that policy by the Leadership team to determine better ways to alleviate the Group's GHG emissions while developing our ambitions in Project Element Six, specifically the review, aid and partner with low carbon technologies (fuels, engines, unmanned systems) that may substitute current technologies to achieve a low carbon future.

As a consequence of that review, the following actions have taken/are taking place which are audited under ISO14001:2019:

- The CSR committee for 2024 has been devolved from the Board to the Leadership. The committee will be chaired by an Executive and will be comprised of EXCO members.
- Project Element Six (workstreams 1 – 5) are to be embedded into Special Mission contract bids from 1st January 2024. On winning the bid, Project Element Six will be embedded into the delivery of that service for the period of the contract (typically 5 to 7 years).
- Improvements in GHG data will be provided to clients within Quarterly Business Reviews as will progress on workstreams 1 – 5 of Project Element Six.
- Offsetting schemes will no longer be continued, with a greater focus being placed on local community schemes, local environmental improvements and providing habitats and pollinators to improve ecological diversity.

Future emission reduction targets



Basis of reduction targets (2020 to 2050)

- Both our targets and the model will be reviewed annually with progress being measured against our audited streamlined energy & carbon reporting ("SECR") obligation.
- Reduction targets will be calculated on a five-year incremental basis and reflect the Group's total tonnes of CO_2e (scope 1,2 & 3).
- On an annual, and five yearly basis, the Group will review the projected targets based on the availability of accelerating carbon reductive technologies such as SAF, synthetic fuels and hydrogen.
- On an annual, and five yearly basis, the Group will review the ambition of the projected targets based on the Group's prevailing strategy, it's business model and service mix.

Reduction targets and assumptions to 2050

The 2022 SECR report showed a continued reduction trend between the Group's 2019 baseline GHG emissions and its 2022 equivalent. This was due to:

- The actions of the Group's Project Element Six programme to reduce emissions within the business
- The 2020 sale of our US aviation business which had the effect of reducing the Group's total managed aircraft fleet (by c55%) and subsequently its downstream, customer initiated, GHG emissions.
- The remaining COVID-19 effect on travel. Post 2022 this is unlikely to have any effect and will likely cause a rise in GHG emissions.

Forecast reduction target 2020 to 2025
The Group projects that carbon emissions will decrease over the next five years to 33,678 tonnes of CO_2e by 2025. This is a reduction of 5%.

The basis of this forecast is predicated on:

- Project Element Six (the Group's carbon reductive plan) will continue to improve performance in the Group's own Scope 1,2 & 3 GHG emissions, however this will be somewhat offset by business growth and the addition of aircraft into the fleet.
- Project Element Six's workstream three (transitioning clients to a lower carbon future) will increase the level of carbon mitigation through offsetting by our clients, however the take up of SAF will continue to be low due to pricing and availability.
- Flight traffic will rise given pent up demand, the abatement of travel restrictions and airline schedules continuing to be rebuilt post-pandemic

- The Group will maintain a policy of using carbon offset schemes to mitigate any Scope 1, 2 and partial Scope 3 emissions that cannot otherwise be reduced.
- Fuel technologies such as SAF will not reach critical mass (as per the Department of Transport's own projections) and therefore, these will only provide marginal gains during the planning period.

Forecast reduction target 2025 to 2030 and 2030 to 2035
The Group projects that carbon emissions will decrease by 7% between 2025 -2030 and a further 7% between 2030 – 2035, such that by 2035, 17,827 tonnes of CO_2e are being emitted.

The basis of this forecast is predicated on:

- A continuation of the baseline activities with no major changes in the business model or mix. Aircraft additions are likely to remain steady and the emissions impact of them is likely to be lower, given the prevalence at this stage of next generation aircraft, fuels, and the optimisation of air traffic control to reduce unnecessary fuel burn.
- Fuel technologies such as SAF will begin to be present as viable options within the UK supply chain with prices dropping as volumes increase. This will be largely predicated by the following actions: an increase in demand from the airlines, increase in UK supply infrastructure, taxation / incentivisation to switch to SAF (i.e., reduction in the cost differential to 'fossil').
- The strong likelihood that the current managed fleet will have largely been upgraded by the aircraft's respective owners, to be more fuel efficient, thus reducing fuel burn and GHG emissions.

Forecast reduction target 2035 to 2050
The Group projects that carbon emissions will decrease by 20% over the five years to 2040 and then a further 75% to 2045. At the end of this period 112 tonnes of CO_2e are forecast to be emitted.

The basis of this forecast is predicated on:

- A continuation of the baseline activities with no major changes in the business model or mix.
- Fuel technologies such as SAF will have broken out (as per the DoT's projections) and will be largely available such that the fossil equivalent is minimal. Further technologies such as eVTOL and hydrogen will also become mature, accelerating progress towards net zero by the end of the planning period.
- The managed aircraft fleet's owners will now have taken one or two replacement cycles and are most likely to be using the most efficient technologies available to them during this period.

Project Element Six. Our carbon reduction and transition programme

Project Element Six is sponsored by the CEO and is our principal programme to reduce scope 1,2 & 3 carbon emissions to 2050. Currently project Element Six has four workstreams which are described below:

- *Workstream 1: Data collection, auditing, and mitigation via offset.* Through this workstream we aim to improve audit accuracy and data such that the Group has, in the future, a near real time view of carbon emissions. This requires some change to systems, policies, and behaviours.

- *Workstream 2: Fix & Optimise.* Through this workstream we will aim to fix, optimise, or add policies / processes and changes in procurement practice that seek to lower the Group's scope one, two and three emissions through change.

- *Workstream 3: Educate and transition.* Through this workstream we will advise our client base, moving them to lower carbon options introduces in conjunction with leading audit / offsetting partners that can aid in compensating and reducing carbon emissions.

- *Workstream 4: Partner to develop low carbon alternatives.* Through this workstream we will work with industry to assist in the development / use of low carbon technologies (fuels, engines, systems, platforms) that may substitute current technologies to achieve a low carbon future.

Declaration and Sign Off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standards for Carbon Reduction Plans.

Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by:

Marwan Khalek
Group Chief Executive, Gama Aviation Plc