

**Sustainable Aviation Fuel (SAF) Incentive in Heathrow Aeronautical Charges
Guidance for Airlines
Version 2: 23 December 2022**

1. HOW IS SAF DEFINED?

For the purpose of the SAF Incentive, Heathrow will accept SAF which is captured under the UK Department for Transport's ("DfT") Renewable Transport Fuel Obligation ("RTFO") definition of SAF¹ (as amended, updated or replaced).

Qualifying SAF must meet the DfT's minimum requirements:

- Reduce CO₂e by at least 60% relative to fossil kerosene on a lifecycle basis;
- Biofuels may not be made from raw material obtained from land with high biodiversity value;
- Biofuels may not be made from raw material obtained from land with high carbon stock, such as forests or land that was undrained peatland in January 2008.

Consistent with the EU Renewable Energy Directive ("RED II"), it is expected that biofuel crops will be progressively excluded in future. The RTFO has been expanded to reward recycled carbon fuels ("RCFs"). RCFs are fuels produced from fossil and biogenic wastes that cannot be avoided, reused or recycled; and to be more flexible in rewarding renewable fuels of non-biological origin ("RFNBO").

Heathrow's clear preference is for RCFs – such as fuels produced from municipal solid waste, cellulosic waste (such as forestry and agricultural residues) and used cooking oil, and RFNBO including 'power-to-liquid' fuels using renewable electricity in their production. Use of RCFs and RFNBO, however, is not a requirement for this SAF Incentive.

At present, Heathrow does not differentiate between the minimum requirement and the leading-edge SAF because we believe that the priority is currently to support the SAF market to gain momentum. As this SAF Incentive progresses over the coming months and years, we intend to keep sustainability standards under constant review and we will likely consult on more stringent sustainability standards for future scheme years.

2. WHAT CONSTITUTES THE USE OF SAF AT HEATHROW?

Provided that it offers an auditable and verifiable path, measurement, reporting and verification of SAF use should align to the UK Emissions Trading Scheme ("UK ETS"). We welcome feedback as part of annual airline engagement regarding how to continue to make this SAF Incentive scheme easy to use as well as effective.

2.1. Documentation required to prove sustainability

In line with the UK ETS, the EU Emissions Trading Scheme ("EU ETS") and the ICAO Carbon Offsetting and Reduction Scheme in International Aviation ("CORSA"), to ensure that the fuel is sustainably produced, Heathrow requires a copy of the Product Transfer Document received by the airline when it places its order for SAF with its fuel supplier as well as a verified emissions reduction report.

The manufacturing facility of the SAF must be certified to:

- The Roundtable on Sustainable Biomaterials ("RSB");
- The International Sustainability and Carbon Certification ("ISCC");

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/947710/rtfo-guidance-part-2-carbon-and-sustainability-2021.pdf

2.2 Documentation required to prove uplift at Heathrow

SAF is considered to have been delivered to Heathrow on provision of evidence of receipt at London Heathrow Airport or delivery into a pipeline connected to London Heathrow Airport, on a mass balance basis.

Evidence can include a suitable batch delivery or 'movement ticket', or another accepted proof of delivery to a Heathrow Airport fuel supply location.

A copy of the Product Transfer Document(s) and the associated movement ticket for the batch should be sent by email to: airlinerelations@heathrow.com. Any commercially sensitive financial information on these documents can be redacted as necessary, so long as Heathrow is able to determine the information required for the purpose of the SAF Incentive, for example, the type of SAF claimed for and the volume delivered to the Airport.

For 2023 claims, evidence of SAF delivery to the Airport must be provided by 31 January 2024 and will be required for verification prior to allocation of any applicable SAF Credit.

3. HOW DOES THE SAF INCENTIVE WORK?

As set out in our 2023 airport charges decision document, the SAF Incentive will collect the incentive pot through the NOx charge (which in turn is within the movement charge) and re-distribute the pot back to airlines who delivered SAF to Heathrow in 2023. The SAF Incentive is calculated by reference to reducing the premium price gap between fossil kerosene and SAF fuel by approximately 50%. For the purpose of the SAF Incentive in 2023, Heathrow has assumed the premium to be £920 GBP per tonne net of Renewable Transport Fuels Certificate (RTFC) value, so will incentivise SAF delivery to Heathrow Airport on the basis of £460 per tonne.

In 2023, to recognise that this increase in the NOx emissions charge will drive additional revenue outside the MAY due to cargo ATM charges there will be two SAF incentive pots. One pot for Passenger ATMs and a separate pot for Cargo ATMs which will be funded by the additional revenue created by NOx emissions charge on cargo ATMs. The Passenger ATM incentive pot will be allocated based on an airlines' Revenue Passenger Kilometres (RPK) to incentivise fuller aircraft. Similarly, the Cargo ATM pot will be allocated based on Freight Tonne Kilometres (FTK)

4. Obtaining SAF at Heathrow

Airlines should work directly with fuel suppliers who will arrange delivery of SAF to the airport. Heathrow Airport Ltd is not directly involved in the aviation fuel supply chain – the fuel farm and hydrant infrastructure system at the airport is managed, maintained and operated by the Heathrow Hydrant Operating Company Ltd (HHOpCo). However, airlines should contact fuel companies not HHOpCo to obtain SAF for delivery at Heathrow.

5. Timeline

- 5.2 In December 2022, Heathrow will calculate the relevant LHR Revenue Passenger Kilometres ("RPK") and Freight Tonne Kilometres ("FTK") (as set out further below) for all airlines operating from Heathrow Airport. The calculation will be based on the 12 month period from Dec 2021 – Nov 2022.

5.3 By 5pm (UK time) on 31 January 2023, all Airlines wishing to participate in the SAF Incentive for 2023 must have contacted Heathrow to state their intention to do so by sending an email to airlinerelations@heathrow.com outlining:

- (i) the number of tonnes of SAF they propose to deliver to Heathrow Airport in 2023; and
- (ii) their nominated contact person for the SAF Incentive.

The subject line of the email should read: [Airline Name] – SAF Incentive 2023.

5.4 By 5pm (UK time) on 14 February 2023, Heathrow will review airlines submissions, calculate, and publish the final allocation. An example of the calculation methodology is set out in paragraph 6, below.

5.5 Airlines will have until 31 December 2023 to deliver the allocated SAF to Heathrow Airport.

5.6 By 31 January 2024 Airlines must provide Heathrow with evidence of the delivery and the necessary certificates (as set out above).

5.7 Subject to compliance with the terms of the SAF Incentive, as set out in the COU, Heathrow will allocate the relevant credit to the Airline’s Heathrow airport charges account. The terms applicable to this are set out in the COU.

6. How the size of the incentive pot is calculated

The pot size is calculated as demonstrated below:

Calculation Element	Example
Forecasted movements at Heathrow in 2023	400k movements
Fuel requirement	≈5.4m tonnes
Desired SAF mix outcome	1.5%
50% of SAF Premium	£920 x 50% = £460
Incentive pot	≈ 5.4m t x 1.5% ≈ 80k t x £460 ≈ £37m

7. How the incentive pot is allocated to airlines

The table below is an illustrative calculation for how SAF incentive allocation per airline will be calculated using Revenue Passenger Kilometre (RPK) for passenger ATMs. The same process will be applied for the Cargo ATM incentive pot.

POT (T)	POT (£)	1. Heathrow to publish SAF Incentive allowance per airline		2. Airlines to submit proposal to HAL	3. HAL to calculate SAF allowances per airline based on received proposals			4. HAL to publish final SAF allocations by airline	
80435	£37,000,000	By end of December 2022		By end of January 2022	Final allocation calculation period			By 14th of February 2022	
Name	RSK share	Allowance £	Allowance T	Airline Proposal T	Step 1	Step 2	Step 3	Final Allocation T	Final Allocation £
A	B	C	D	E	F	G	H	I	J
Airline 1	43%	15,910,000	34587	51800	34587	13240	418	48245	£22,192,600
Airline 2	27%	9,990,000	21717	9250	9250	0	0	9250	£4,255,000
Airline 3	17%	6,290,000	13674	18500	13674	4826	0	18500	£8,510,000
Airline 4	9%	3,330,000	7239	0	0	0	0	0	£0
Airline 5	4%	1,480,000	3217	4440	3217	1223	0	4440	£2,042,400
				83990	60728	19289	418	80435	£37,000,000

Step 1: Proposals within allowances (D) are assigned, any airline proposal (E) higher than allowance (D) goes to step 2.

Step 2: As Airlines 2 and 4 did not utilise their full allowance (D), we will redistribute unallocated tonnage to airlines who want to purchase over their initial allowance (D) Remaining tonnage is allocated using RPK share of Airlines 1,3 and 5. Calculation will allocate up until airlines proposal number (E) is hit. This is visible in Airlines 3 and 5 which have been allocated the full proposal amount (E) at this stage. Any remaining tonnage after this step will move to step 3

Step 3: So far Airlines 2,3,4 and 5 have been allocated full proposal amount (E). Since the difference between Airline 1 proposal (E) and what has been allocated so far (F) and (G) is more than 418, the whole remaining tonnage will be allocated to Airline 1. Should there be more airlines with unused allocation at this stage we would repeat allocation logic from step 2 until we allocate full tonnage allowance of 80435.

8. SAF Incentive initial allocation per airline for 2023 based on RPK*

Airline	%	Tonnes	Airline	%	Tonnes	Airline	%	Tonnes
British Airways	36.14%	29042	Eva Airways	0.32%	256	Air Serbia	0.04%	32
Virgin Atlantic Airways	10.31%	8284	Aegean Airlines	0.32%	254	Air China	0.04%	31
American Airlines	7.57%	6082	Finnair	0.31%	252	Brussels Airlines	0.03%	27
United Airlines	5.01%	4025	Aer Lingus	0.31%	252	Aeroflot	0.03%	25
Emirates	4.11%	3301	Oman Air	0.30%	243	Klm Cityhopper	0.03%	24
Singapore Airlines	3.13%	2515	Korean Air	0.30%	243	Wideroe	0.02%	20
Air Canada	3.01%	2419	Westjet	0.25%	203	Bulgaria Air	0.02%	18
Qatar Airways	2.92%	2349	Swiss International Air Lines	0.23%	188	Croatia Airlines	0.02%	16
Qantas Airways	2.41%	1938	Royal Jordanian Airline	0.22%	179	Air Algerie	0.02%	16
Delta Air Lines	2.38%	1914	All Nippon Airways	0.21%	170	China Eastern Airlines	0.02%	15
Air India	2.16%	1732	Middle East Airlines	0.21%	166	Philippine Airlines	0.02%	15
Etihad Airways	1.55%	1248	Asiana Airlines	0.19%	153	China Southern Airlines	0.02%	14
Thai International Airways	1.09%	873	Jetblue Airways	0.19%	153	Tunisair	0.01%	11
Malaysia Airlines	1.01%	813	Vietnam Airlines	0.17%	133	Flybe Ltd	0.01%	10
Tam Linhas Aereas	0.93%	748	Austrian Airlines	0.16%	131	Beijing Capital Airlines	0.01%	10
Saudi Arabian Airlines	0.91%	727	Air Malta	0.16%	130	Loganair Ltd	0.00%	3
Turkish Airlines	0.85%	682	Ioelandair	0.16%	127	Jazeera Airways	0.00%	3
Cathay Pacific Airways	0.80%	643	ITA	0.14%	109	Smartwings	0.00%	2
Gulf Air	0.75%	604	Eurowings	0.13%	102	Aerolineas Argentinas	0.00%	2
Sri Lankan Airlines	0.70%	559	Royal Brunei Airlines	0.12%	95	Shenzhen Airlines	0.00%	1
Japan Airlines	0.59%	473	Lot Polish Airlines	0.12%	93	Arkia Israeli Airlines	0.00%	1
Ethiopian Airlines	0.52%	416	Iran Air	0.09%	75			
Kuwait Airways	0.50%	401	Rwandair	0.09%	69			
Tata Sia Airlines	0.49%	392	Air France	0.08%	66			
Kenya Airways	0.47%	374	China Airlines	0.08%	65			
Scandinavian Airlines System	0.45%	358	Blue Air Aviation	0.08%	61			
Iberia	0.42%	339	Royal Air Maroc	0.07%	57			
Lufthansa	0.41%	333	Sky Express	0.07%	55			
Egyptair	0.41%	333	Klm Royal Dutch Airlines	0.06%	50			
Air Mauritius	0.41%	330	Bamboo Airways	0.06%	47			
Avianca	0.39%	311	Uzbekistan Airways	0.06%	46			
Aerovias De Mexico	0.35%	283	Azerbaijan Airlines	0.05%	41			
Biman Bangladesh Airlines	0.35%	283	Tarom Romanian Air Transport	0.05%	40			
Transportes Aereos Portugueses	0.35%	280	Air Astana	0.05%	38			
El Al Israel Airlines	0.34%	274	Jordan Aviation	0.05%	36			

*Allowances are subject to change in accordance with 8.12, Schedule 4 of the COU 2022 relating to penalties for not meeting SAF deliveries confirmed for 2022.

9. Cargo ATM Incentive initial allocation per airline for 2023 based on FTK

Airline	%	Tonnes	Airline	%	Tonnes
Air China		232	Airbridgecargo Airlines	0.11%	2
China Eastern Airlines		155	Jsc Siberia Airlines	0.08%	1
British Airways		135	Skywind International	0.08%	1
DHL		90	El Al Israel Airlines	0.07%	1
Korean Air		86	United Airlines	0.05%	1
Emirates		62	Click Aviation Network	0.04%	1
Singapore Airlines		56	Neos Spa	0.04%	1
Cathay Pacific Airways		55			
Cargojet Airways		55			
European Air Transport		54			
China Southern Airlines		48			
Kenya Airways		39			
Virgin Atlantic Airways		37			
Eva Airways		37			
Qatar Airways		31			
Aerotranscargo		29			
Hainan Airlines Holding		23			
Beijing Capital Airlines		18			
Ethiopian Airlines		17			
Abx Air		13			
Tianjin Airlines		13			
Egyptair		11			
Silk Way West Airlines		10			
All Nippon Airways		8			
Cargologicair		7			
Mng Havayollari Ve Tasimacilik		6			
Xiamen Airlines		5			
Vietnam Airlines		4			
Japan Airlines		4			
Turkish Airlines		3			
Juneyao Airlines		2			
Malaysia Airlines		2			
United Aviation Services		2			
Etihad Airways		2			