

Sustainable Aviation Fuel (SAF) Incentive in Heathrow Aeronautical Charges Guidance for Airlines Version 1: 20th December 2021

Purpose of this document

As set out in the Heathrow Airport Limited Conditions of Use (effective from 1 January 2022) (“**COU**”), Heathrow is introducing a Sustainable Aviation Fuel (“**SAF**”) Incentive (“**SAF Incentive**”) from 1 January 2022.

This supplementary guidance should be read in conjunction with the COU and does not supersede or amend any terms as set out in the COU. Should there be any conflict between the terms of the COU and this document, the COU shall prevail. As set out in the COU, this document provides airline applicants with further detail on the scheme. This document may be updated from time to time for reasons including, but not limited to, addressing airline feedback where appropriate and reflecting developments regarding SAF.

1. WHAT IS THE HEATHROW SAF INCENTIVE AIMING TO ACHIEVE?

1.1 The important role of SAF for aviation decarbonisation

As set out in our 2022 airport charges decision document, of the available solutions for cutting carbon emissions from aviation this decade, SAF will play a prominent role. As underlined by cross-industry coalitions, such as the World Economic Forum’s Clean Skies for Tomorrow¹, accelerating the adoption and use of SAF is a shared priority for the industry.

SAF is available today but is significantly more expensive than fossil kerosene. Available supply is at low levels, however more production capacity is currently being developed. Scaling up use of SAF, and lowering the cost premium, requires policy support from governments around the world. Many governments and regions are implementing SAF policies, leading to widespread optimism in the industry that a meaningful percentage of total jet fuel can be provided by SAF by the end of this decade.

1.2 The rationale for acting at Heathrow

At Heathrow, we see SAF as key to achieving net zero and we want to be a leading hub for the development and deployment of SAF. To this end, we proposed to introduce a multi-year sustainable fuel incentive, recovered via the Emissions charge, which will reduce the high-cost premium of SAF paid by airlines as compared to standard kerosene aviation fuel and incentivise the investment in domestic SAF production in the UK. This in turn will reduce the SAF premium and encourage further take up, resulting in lower carbon emissions from airline operations out of Heathrow Airport.

Climate change is the greatest long-term challenge faced by aviation. There are different initiatives which can contribute to decarbonising flying, but it is widely accepted that SAF will play a significant role in decoupling aviation growth and emissions in the near-term. Government policy is beginning to emerge, but it is not until 2025 that we expect these policies to take effect to drive demand for SAF and address the price differential to kerosene. This would leave little time for SAF production and use to scale to levels that will deliver net zero aviation; however, Heathrow will review the incentive annually to take account of the planned introduction of Government policy relating to SAF. In the meantime, Heathrow can help to address the urgency by introducing measures to drive SAF demand from 2022, making it easier for Government policy to achieve its desired outcomes by 2030.

¹ <https://missionpossiblepartnership.org/action-sectors/aviation/>

2. 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 SAF² (as amended, updated or replaced by aviation moving into its own regulatory scheme outside the RTFO).

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. Note that use of RCFs and RFNBO is not a requirement for the 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.

3. WHAT CONSTITUTES THE USE OF SAF AT HEATHROW?

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.

3.1. Documentation required to prove sustainability of SAF and its uplift at Heathrow

In line with the ICAO Carbon Offsetting and Reduction Scheme in International Aviation ("CORSA"), to ensure that the fuel is sustainably produced, the manufacturing facility of the SAF must be certified to:

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

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 at 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.

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

For 2022 claims, evidence of SAF delivery to the Airport must be provided by 31 January 2023 and will be required for verification prior to allocation of any applicable SAF Credit.

4. HOW DOES THE SAF INCENTIVE WORK?

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 2022. 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 2022, 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.

4.1 Timeline

1. In December 2021, Heathrow will calculate the relevant LHR Available Seat Kilometres (“**ASK**”) (as set out further below) for all airlines operating from Heathrow Airport.
2. By 5pm (UK time) on 31 January 2022, all Airlines wishing to participate in the SAF Incentive for 2022 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 2022; and
 - (ii) their nominated contact person for the SAF Incentive.The subject line of the email should read: [Airline Name] – SAF Incentive 2022.
3. By 5pm (UK time) on 14 February 2022, Heathrow will calculate the ASK allocation for participating airlines and publish the final allocation. An example of the calculation methodology is set out in paragraph 4.2, below.
4. Airlines will have until 31 December 2022 to deliver the Airline SAF Allocation to Heathrow Airport.
5. By 31 January 2023 Airlines must provide Heathrow with evidence of the delivery and the necessary certificates (as set out above).

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.

4.2 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 2022	310k movements
Fuel requirement	≈4.2m tonnes
Desired SAF mix outcome	0.5%
50% of SAF Premium	£920 x 50% = £460
Incentive pot	≈ 4.2m t x 0.5% ≈ 22k t x £460 ≈ £10m
If under-subscribed	If the cumulative commitment from all participating airlines is less than 22,000 tonnes, we will reduce the Incentive Pot size accordingly i.e. If total commitment from airlines is 15k tonnes, the incentive pot size will be recalculated as follows: 15k t x £460/t = £6.9m. Unused funds, which incentive collected via movement charge would be included in the calculations for any over or under-recovery.

4.3 How the incentive pot is allocated to airlines

The table below shows an illustrative calculation of how SAF incentive allocation per airline will be calculated using Available Seat Kilometre (ASK)

POT (T)	POT (£)	1. Heathrow to publish SAF Incentive allowance per airline based on ASK		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	
21739	10000000	By end of December 2021		By end of January 2022	Final allocation calculation period			By 14th of February 2022	
Name	ASK 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%	4,300,000	9348	14000	9348	3578	113	13039	5,998,000
Airline 2	27%	2,700,000	5870	2500	2500			2500	1,150,000
Airline 3	17%	1,700,000	3696	5000	3696	1304		5000	2,300,000
Airline 4	9%	900,000	1957	0	0			0	-
Airline 5	4%	400,000	870	1200	870	330		1200	552,000
		10,000,000	21739	22700	16413	5213	113	21739	10,000,000

Step 1: Proposals within allowances (D) are assigned, any 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 of 5326 (21739 – 16413) is allocated using ASK 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. Remaining tonnage of 113 (21739 – 16413 – 5213) 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 113, 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 the full tonnage allowance of 21739.

4.4 SAF Incentive initial allocation per airline for 2022 based on ASK

Airline	%	Tonnes	Airline	%	Tonnes	Airline	%	Tonnes
BRITISH AIRWAYS PLC	37.450%	8141	ETHIOPIAN AIRLINES SC	0.0043	94	ROYAL AIR MAROC	0.073%	16
VIRGIN ATLANTIC AIRWAYS LTD	7.798%	1695	AEROFLOT RUSSIAN INT'L AIRLINES	0.0043	94	KLM ROYAL DUTCH AIRLINES	0.071%	15
AMERICAN AIRLINES INC	6.261%	1361	VIETNAM AIRLINES	0.0043	94	AZERBAIJAN AIRLINES	0.070%	15
UNITED AIRLINES LTD	4.345%	944	PHILIPPINE AIRLINES	0.0040	86	AIR SERBIA A.D.	0.062%	13
EMIRATES	2.824%	614	Finnair Plc	0.0039	85	AIR FRANCE	0.058%	13
Singapore Airlines Ltd	2.738%	595	SOUTH AFRICAN AIRWAYS	0.0039	84	UZBEKISTAN AIRWAYS	0.051%	11
AIR CANADA	2.605%	566	AEROVIAS DE MEXICO UK BRANCH	0.0038	82	VUELING AIRLINES S.A.	0.043%	9
Cathay Pacific Airways Ltd	2.458%	534	ALL NIPPON AIRWAYS CO LTD	0.0036	79	Tarom Romanian Air Transport B/G	0.042%	9
Delta Air Lines Inc	2.255%	490	Aerovias del Continente Americano SA Avi	0.0036	79	BULGARIA AIR EAD	0.038%	8
Qatar Airways Ltd	2.119%	461	Aer Lingus	0.0032	70	AIR ALGERIE	0.035%	8
QANTAS AIRWAYS LTD	2.085%	453	BANGLADESH BIMAN	0.0032	69	BRUSSELS AIRLINES NV/SA	0.028%	6
ETIHAD AIRWAYS	1.686%	366	Iberia L.A.E. S.A. Operadora	0.0031	68	TUNISAIR	0.027%	6
THAI INTERNATIONAL AIRWAYS	1.344%	292	EGYPTAIR	0.0031	68	Croatia Airlines D.D	0.020%	4
AIR INDIA	1.314%	286	Transportes Aereos Portugueses	0.0029	63	KLM Cityhopper B.V.	0.019%	4
AIR CHINA (CAAC)	1.197%	260	KENYA AIRWAYS	0.0027	60	Signature Flight Support UK	0.006%	1
AIR NEW ZEALAND LTD	1.044%	227	EL AL ISRAEL AIRLINES LTD	0.0027	58	ROYAL AIR FORCE	0.002%	1
Malaysia Airlines Berhad	1.041%	226	SWISS INTERNATIONAL AIR LINES LTD	0.0025	55	TURKMENISTAN AIRLINE	0.002%	0
CHINA SOUTHERN AIRLINES COMPANY LIMITED	0.722%	157	AEGEAN AIRLINES SA	0.0023	51	EUROPEAN AIR TRANSPORT	0.002%	0
Japan Airlines Co. Ltd	0.680%	148	EUROWINGS GMBH	0.0023	51	Bahrain Royal Flight	0.001%	0
TURKISH AIRLINES	0.617%	134	AIR MAURITIUS LTD	0.0023	50	STATE OF QATAR	0.001%	0
Tam Linhas Aereas S/A	0.601%	131	Tianjin Airlines Co Ltd	0.0023	50	Blue Air Aviation S.A.	0.086%	19
SCANDINAVIAN AIRLINES SYSTEM	0.542%	118	Shenzhen Airlines Co Ltd	0.0022	48	CHINA AIRLINES	0.020%	4
KOREAN AIR	0.536%	117	PT Garuda Indonesia Persero TBK	0.0021	45	Jazeera Airways	0.010%	2
EVA AIRWAYS	0.533%	116	MIDDLE EAST AIRLINES LIBAN	0.0021	45	Jetblue Airways Corporation	0.029%	6
Oman Air B/G	0.533%	116	ALITALIA SOCIETA AEREA ITALIANA S.P.A	0.0020	43	RwandAir Ltd	0.051%	11
Sri Lankan Airlines Ltd	0.503%	109	ROYAL JORDANIAN AIRLINE	0.0017	38	LOGANAIR LTD	0.005%	1
PAKISTAN INTERNATIONAL AIRLINE	0.502%	109	AUSTRIAN AIRLINES	0.0014	31	Sky Express S.A.	0.021%	5
CHINA EASTERN AIRLINES	0.497%	108	ICELANDAIR	0.0014	31	Smartwings AS	0.004%	1
SAUDI ARABIAN AIRLINES	0.494%	107	Air Malta Plc	0.0013	29	Tata SIA Airlines Ltd	0.145%	32
GULF AIR	0.493%	107	LOT POLISH AIRLINES	0.0012	26	UKRAINE INTERNATIONAL AIRLINES	0.014%	3
ROYAL BRUNEI AIRLINES	0.489%	106	Beijing Capital Airlines	0.0011	23	Wideroe's Flyveselskap AS	0.006%	1
JET AIRWAYS (INDIA) LTD	0.451%	98	Hainan Airlines Holding (UK) Co. Limited	0.0009	21			
KUWAIT AIRWAYS	0.450%	98	CJSC AIR ASTANA	0.0009	20			
LUFTHANSA GERMAN AIRLINES	0.449%	98	IRAN AIR	0.0009	19			
ASIANA AIRLINES	0.448%	97	Hainan Airlines Holding Co Ltd	0.0008	17			

5. HOW WILL THE SAF INCENTIVE WORK OVER THE LONGER TERM?

The SAF Incentive will be reviewed on at least an annual basis, with any changes consulted on with airlines through the usual annual consultation process on airport charges.

In the UK, it is anticipated that new Government policy will be implemented from 2025 to incentivise the production and use of SAF. In the absence of a confirmed policy timetable, it is not possible to confirm future changes to the SAF Incentive at this time. This will be reviewed should legislative changes impact the status of SAF or market conditions materially change. At the time of writing, it is assumed that the incentive will begin at 0.5%, rising to 2% by 2024. After Government policy takes effect, the current intention is for the incentive to act on the SAF used above any target level that may be mandated by UK government.