



ICAO EUR/NAT Environment Workshop Hosted by the State Civil Aviation Agency of the Republic of Azerbaijan



ICAO

Calculation of CORSIA offsetting requirement for 2024

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Outline

1. Quick recap of the provisions in the Second Edition of Annex 16, Volume IV
2. Timeline for notification of aeroplane operators
3. Latest update on the SGF
4. Tour de table on current status of notification
5. Small Exercise

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Quick recap of the provisions in the Second Edition of Annex 16, Volume IV

Part II, Chapter 3, 3.2.2

3.2.2 The State shall calculate, for each of the aeroplane operators attributed to it, the amount of CO₂ emissions required to be offset in a given year from 1 January 2024 to 31 December 2035 prior to consideration of the CORSIA eligible fuels, every year as follows:

$$\%O_y = 0\% \text{ (for 2024 – 2032)}$$

$$OR_y = \%S_y * (OE_y * SGF_y) + \%O_y * (OE_y * OGF_y)$$

where:

$$\%S_y = 100\% \text{ (for 2024 – 2032)}$$

- OR_y = Aeroplane operator's offsetting requirements in the given year *y*;
- OE_y = Aeroplane operator's CO₂ emissions covered by 3.1 in the given year *y*;
- %S_y = Per cent Sectoral in the given year *y*;
- %O_y = Per cent Individual in the given year *y* where %O_y = (100% - %S_y);
- SGF_y = Sector's Growth Factor; and
- OGF_y = Aeroplane operator's Growth Factor.

Quick recap of the provisions in the Second Edition of Annex 16, Volume IV

Part II, Chapter 3, 3.2.2

Table 3.1. Overview of CO₂ offsetting requirements on a sectoral and individual basis

<i>Year of applicability</i>	<i>%S_y</i>	<i>%O_y</i>
1 January 2024 to 31 December 2029	100%	0%
1 January 2030 to 31 December 2032	100%	0%
1 January 2033 to 31 December 2035	85%	15%

Quick recap of the provisions in the Second Edition of Annex 16, Volume IV

Part II, Chapter 3, 3.2.2

Note 1.— The Sector’s Growth Factor applicable for a given year (SGF_y) is provided in the ICAO document entitled “CORSIA Annual Sector’s Growth Factor (SGF)” that is available from the ICAO CORSIA website, and is calculated as

$$\frac{(SE_y - SE_{B,y})}{SE_y}$$

where SE_y = Total sectoral CO₂ emissions covered by 3.1 in the given year y and $SE_{B,y}$ = 85 per cent of total annual sectoral CO₂ emissions in 2019 covered by 3.1 in the given year y.

Note 2.— Sectoral emissions in a given year (SE_y) do not include the CO₂ emissions from new entrants during their exception period, as defined in 3.1.2.

Note 3.— As the States which form the “CORSIA States for Chapter 3 State Pairs”, as defined by 3.1, change over time, the 85 per cent of total annual sectoral CO₂ emissions in 2019 covered by these State pairs in the given year y ($SE_{B,y}$) will be recalculated.

Quick recap of the provisions in the Second Edition of Annex 16, Volume IV

Part II, Chapter 3, 3.2.3

3.2.3 The State shall use the Sector Growth Factor applicable for a given year (SGF_y) in the ICAO document entitled “CORSIA Annual Sector’s Growth Factor (SGF)” that is available from the ICAO CORSIA website. This information will be produced in accordance with the timeline as defined in Appendix 1.

Quick recap of the provisions in the Second Edition of Annex 16, Volume IV

Part II, Chapter 3, 3.4 Not relevant for 2024, compliance period 2024-2026

3.4 Total final CO₂ offsetting requirements for a given compliance period with emissions reductions from the use of CORSIA eligible fuels

3.4.1 The amount of CO₂ emissions required to be offset by the aeroplane operator, after taking into account emissions reductions from the use of CORSIA eligible fuels in a given compliance period from 1 January 2021 to 31 December 2035, shall be calculated by the State as follows:

$$FOR_c = (OR_{1,c} + OR_{2,c} + OR_{3,c}) - (ER_{1,c} + ER_{2,c} + ER_{3,c})$$

where:

Emissions reduction from CEFs are only taken into account when calculating the total final CO₂ offsetting requirements

- FOR_c = Aeroplane operator's total final offsetting requirements in the given compliance period *c*;
- OR_{y,c} = Aeroplane operator's offsetting requirements in the given year *y* (where *y* = 1, 2 or 3) of the compliance period *c*; and
- ER_{y,c} = Emissions reductions from the use of CORSIA eligible fuels in the given year *y* (where *y* = 1, 2 or 3) of the compliance period *c*.

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Timeline for notification of aeroplane operators

Part II, Chapter 3, 3.2.6

3.2.6 The State shall, upon calculating the offsetting requirements in a given year (OR_y) of each of the aeroplane operators attributed to it, inform the aeroplane operator of its offsetting requirements according to the timeline as defined in Appendix 1.

Appendix 1

31 October 2025	The State shall obtain and use the Sector's Growth Factor (SGF) for 2024 from the ICAO document entitled "CORSA Annual Sector's Growth Factor (SGF)" in accordance with Part II, Chapter 3, 3.2.2.
<u>30 November 2025</u>	The State shall calculate and inform aeroplane operators of their offsetting requirements for 2024, in accordance with Part II, Chapter 3, 3.2.
	The State shall submit updates to the list of aeroplane operators that are attributed to it to ICAO in accordance with Part II, Chapter 1, 1.2.7, as well as updates to the list of verification bodies accredited in the State in accordance with Part II, Chapter 1, 1.3.7.

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Latest update on the SGF

ICAO Website

CORSIA Annual Sector's Growth Factor (SGF)

Description

This ICAO document contains the Sector's Growth Factor (SGF) for a specific year starting in 2021. States use the SGF to determine the offsetting requirements of the aeroplane operator(s) attributed to them for the specific year.



ICAO document

CORSIA Annual Sector's Growth Factor (SGF)



October 2025

CORSIA
Carbon Offsetting and Reduction Scheme for International Aviation

Current edition

Fourth edition (October 2025) – [click here](#).

Note — The ICAO Secretariat is in the process of revising the CORSIA Annual Sector's Growth Factor for year 2024 (SGF₂₀₂₄); the revision process may result in a decrease of the SGF₂₀₂₄ value, with such decrease estimated to be within a range of 0 - 2.0 %. In the event of a revised SGF₂₀₂₄ value being applicable, a revision to the fourth edition of the ICAO document "CORSIA Annual Sector's Growth Factor (SGF)" will be published by 12 December 2025.

Message from ICAO to ICAO Focal Points

ICAO: "Annex 16, Volume IV, Part II, Chapter 3, 3.2.2, Note 2 states that, when calculating SGF_y, the value of SE_y **does not include CO₂ emissions from new entrants** provided that the new entrant is within the period when it is excepted from accruing offsetting requirements; such period is determined as per the provisions contained in Annex 16, Volume IV, Part II, Chapter 3, 3.1.2.

In order for the calculation of SGF₂₀₂₄ to consider the provision contained in Annex 16, Volume IV, Part II, Chapter 3, 3.2.2, Note 2, information is required regarding which aeroplane operators for which States reported CO₂ emissions in 2024 are new entrants within the period when it is excepted from accruing offsetting requirements. **However, the reporting requirements set in Annex 16, Volume IV, Appendix 5 do not include a requirement for States to report to ICAO on this particular circumstance.** Consequently, the value of SGF₂₀₂₄ published in the fourth edition of the ICAO document "CORSIA Annual Sector's Growth Factor (SGF)" **may have been overcalculated.**"

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Tour de table on current status of notification

Part II, Chapter 3, 3.2.6

- Have you informed your national aeroplane operators already?
- Have you informed ICAO on new entrants?
- What are your next steps?

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Small Exercise

Please calculate the offsetting obligation for this operator on the basis of the currently published SGF

c) Table of all State pairs

Please list all State pairs on which international flights were performed and enter the number of flights and the amount of CO₂ emissions.

(*) For the purposes of this template, the fuel total could include the sum of equivalent fuels

		CO ₂ emissions estimated with CERT?	Total No. of flights	Fuel type ^(*)	Total mass of fuel (in tonnes)	Fuel conversion factors	Total CO ₂ emissions (in tonnes)	Subject to offsetting requirements?
A		yes	102				1.054	
B		yes	123				2.628	
E		yes	142				3.265	
G		yes	138				1.039	Yes
G		yes	150				4.325	Yes
S		yes	192				5.033	Yes
T		yes	146				7.520	Yes

(1,039 tonnes
 + 4,325 tonnes
 + 5,033 tonnes
 + 7,520 tonnes)
 x 0.15948315
 = 2857,45959855

Please remember this is not the SGF for 2024

No rounding

**Umwelt
Bundesamt**

DEHSt
Deutsche
Emissionshandelsstelle

Thank you for your attention!

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Thank You

