## CAEP'S UPDATE TO THE CORSIA ANALYSES TO SUPPORT THE COUNCIL IN UNDERTAKING THE 2025 CORSIA PERIODIC REVIEW

# **INTRODUCTION**

At the 232<sup>nd</sup> Session of the Council (June 2024), CAEP provided initial CORSIA Analyses to support the Council in undertaking the 2025 CORSIA periodic review, as well as a schedule of subsequent updates.

The Council reviewed CAEP's inputs and requested CAEP to provide subsequent updates of the CORSIA Analyses to support the Council in undertaking the 2025 CORSIA periodic review, as per the schedule presented by CAEP. The Council also emphasized the need for further information to be provided on the supply, regional distribution and price of CORSIA Eligible Emissions Units and CORSIA Eligible Fuels, as a key input to the 2025 CORSIA periodic review.

The technical work undertaken by CAEP for the provision of inputs to the 232<sup>nd</sup> Session was completed at the end of May 2024. **Since then, further updates to the CORSIA Analyses have been limited in scope**, pending the availability of updates to key inputs to CAEP's work on this matter.

This report has been structured in three parts:

- Part I: Overview of the main elements of the CORSIA Analyses presented by CAEP to the 232<sup>nd</sup> Session of the Council, reflecting areas where further CAEP work has led to updates, and with an indication of upcoming updates;
- Part II: Status of work undertaken by CAEP in response to requests from the 232nd Session of the Council; and
- Part III: Schedule of updates to the CORSIA Analyses for the 234<sup>th</sup> and 235<sup>th</sup> Sessions of the Council, as per the schedule presented by CAEP at the 232<sup>nd</sup> Session.

## PART I — OVERVIEW OF THE MAIN ELEMENTS OF THE CORSIA ANALYSES PRESENTED BY CAEP TO THE 232ND SESSION OF THE COUNCIL

## 1.1 CAEP'S APPROACH TO THE CORSIA ANALYSES IN SUPPORT OF THE 2025 CORSIA PERIODIC REVIEW

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slides 3 to 6); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

The 2022 CORSIA periodic review was conducted during CORSIA's pilot phase (2021 - 2023), and was strongly influenced by the occurrence of the COVID-19 global pandemic, which had substantial impacts on the international aviation sector and its CO<sub>2</sub> emissions.

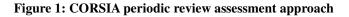
The 2025 CORSIA periodic review is being conducted during CORSIA's first phase (2024 – 2026). The CORSIA Analyses that serves as the main input from CAEP to the Council to support the latter's work on the CORSIA periodic review includes, similar to CAEP's inputs during the 2022 CORSIA periodic review, **an** *ex ante* (i.e., forward-looking) analysis related to key elements of CORSIA implementation, *inter alia*: estimation of CORSIA offsetting requirements and their regional distribution; supply and price of CORSIA Eligible Emissions Units and CORSIA Eligible Fuels; and costs related to the implementation of the scheme.

Unlike CAEP's inputs to the Council during the 2022 CORSIA periodic review, the 2025 CORSIA periodic review also allows for CAEP's CORSIA Analyses to include a *post facto* (i.e., backward-looking) analysis of CORSIA implementation during the pilot phase (2021-2023).

Figure 1 shows the details on the two key components of CAEP's CORSIA Analyses in support of the 2025 CORSIA periodic review, including the descriptions of key metrics that are tracked and modelled, data sources, analysis processes and outcomes.

CORSIA Periodic Review Assessment Approach		Backwar	d Looking Asses	ssment	Forward Looking Assessment			
hen	nes & Metrics	Data (Sources) Historical Forecasts*	Process	Outcome	Input: Assumptions & Scenarios	Process	Outcome	
Activity	Traffic (RPK, RTK)	ICAO ADAP & IATA Forecasts	Tracking of traffic (actual vs. forecast)	Assessment of contribution from traffic and capacity to	ICAO Traffic Forecasts			
Acti	Capacity (ASK, ATK)	ICAO ADAP & IATA Forecasts	Tracking of capacity (actual vs. forecast)	actual CO <sub>2</sub> emissions levels	ICAO Capacity Forecasts	Fleet Evolution		
units)	Combustion CO <sub>2</sub> em. (after Tech. & Ops)	CORSIA CCR CAEP Trends	Tracking of CO <sub>2</sub> em. (actual vs. forecast)	<ul> <li>Differences actual vs. previously forecast.</li> </ul>		GHG (CO <sub>2</sub> ) Modeling	CAEP Trends	
missions L	Offsetting Requirements	CCR WG4 Analyses	Tracking of O.R. (actual vs. forecast)	<ul> <li>Contribution from</li> <li>O.R. to Net CO<sub>2</sub> Em.</li> </ul>	CORSIA Rules	WG4 Analyses	Future Offsetting     Requirements	
eductions and emis	ER from CEF	CCR & other FTG & WG4 Scenarios	Tracking of CEF (actual vs. planned)	Contribution from ER from CEF	CEF Scenario (FTG & WG4)	CORSIA CEF & EEU Scenario-based	Contribution from	
reductio	Emissions Units	CCR & other WG4 Scenarios	Tracking of CEEUs (actual vs. forecast)	Contribution from CEEUs	Emissions Units Supply	Analyses	CCEUs	
(including reductions and emissions	Net CO <sub>2</sub> emissions (after Emissions Units)	WG4 WG4 Analyses Analyses	Tracking of Net CO <sub>2</sub> Emissions	Actual Net CO <sub>2</sub> Emissions		_	Forecast Net CO <sub>2</sub> Emission	
Ŭ		Carl	oon Neutral Growth 20	20 Goal (based on 2019 actua	ICO2 emissions as proxy for pre-Cov	id 2020 emissions level)		
	Monitoring, Report. & Verification (MRV)				WG4 (and IATA) Assumptions		Costs of MRV	
	ER from CEF	CCR & other WG4 Analyses	Tracking of Costs of CEF	<ul> <li>Costs of CEF</li> </ul>	Industry/Public Reports & TBD			
	Emissions Units	CCR & other WG4 Analyses	Tracking of Costs of CEEUs	➤ Costs of CEEUs	Industry/Public Reports & TBD		Costs of CEEUs	
	Impacts on Operators					CORSIA Model	Distribution of O.R. across AOs	

\* Claimed Emissions Reductions from CEF and Cancelled Emissions Units available from the CCR (when available). Complementary data sources for other metrics contained in the "Framework towards the assessment of the potential role of Emissions Reductions from CEF and CORSIA Eligible Emissions Units" see Figure 6 for details and relevant sections for specific data sources. \*\* Other sources of relevant information e.g., on price of CORSIA Eligible Fuels, price of emissions units. Note: Actual data not needed for the review of CORSIA's Pilot Phase (2021-2023) as part of the 2025 CORSIA Periodic Review given the expected lack of offsetting requirements during the Pilot Phase. Actual data sources subject to work by WG4 (per the outcome of the CAEP Steering Group 2024).



# **1.2 CO<sub>2</sub> EMISSIONS TRENDS**

CAEP CO<sub>2</sub> emissions trends are a key input to the CORSIA Analyses in support of the CORSIA periodic review. CAEP CO<sub>2</sub> emissions trends usually become available towards the end of each 3-year CAEP cycle.

## Review of CORSIA's pilot phase

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 8); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

For the purpose of the CORSIA Analyses in support of the 2022 CORSIA periodic review, CAEP/12 CO<sub>2</sub> emissions trends were used by CAEP.

In the context of the CORSIA Analyses in support of the 2025 CORSIA periodic review, actual CO<sub>2</sub> emissions data is made available through the annual editions of the ICAO document *CORSIA Central Registry (CCR): Information and Data for Transparency*. A comparison of this data with the CAEP/12 CO<sub>2</sub> emissions trends shows that **actual CO<sub>2</sub> emissions followed a Low CAEP/12 forecast in 2021, but the international aviation sector exhibited a stronger recovery in 2022** (see Figure 2). The latter trend is also expected to be seen in the 2023 estimated CO<sub>2</sub> emissions data (official 2023 data from the CORSIA CCR is not yet available).



Figure 2: Actual CO2 data vs. CAEP/12 emissions trends used in the 2022 CORSIA periodic review

<u>Future updates</u> — 2023  $CO_2$  emissions data will be made available in October 2024, following the publication of the ICAO document *CORSIA Central Registry (CCR): Information and Data for Transparency*, Part III (*Total Annual CO<sub>2</sub> Emissions and Information for Aeroplane Operators*).

## Forward-looking CORSIA Analyses

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 14); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

While official trends in  $CO_2$  emissions are not available yet for the CAEP/13 cycle (2022 – 2024), CAEP has produced "proxy" CAEP/13 trends by translating capacity forecasts into  $CO_2$  emissions trends and CAEP/13 aircraft technology and operational improvements scenarios. This approach was already applied by CAEP during the first half of the CAEP/12 cycle (2019 – 2021) to address Council requests regarding the understanding of the impacts of the COVID-19 global pandemic on international aviation and its implications on CORSIA.

Figure 3 shows the proxy CAEP/13 trends of CO<sub>2</sub> emissions from international aviation from 2019 to 2035. Under the proxy CAEP/13 CO<sub>2</sub> emissions trends, CO<sub>2</sub> emissions are expected to return to the 2019 level by 2025 under the Mid and High CAEP/13 scenarios (2027 under the Low CAEP/13 scenario).

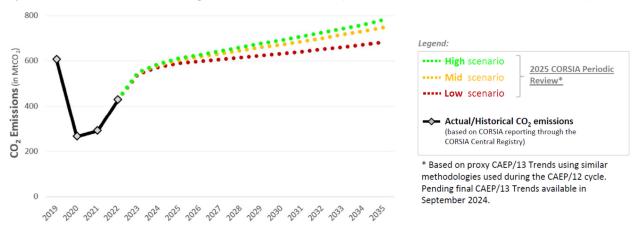


Figure 3: Proxy CAEP/13 emissions trends

Future updates — CAEP/13 CO<sub>2</sub> emissions trends are expected to become available in late September 2024.

## **1.3 ESTIMATION OF OFFSETTING REQUIREMENTS**

## Review of CORSIA's pilot phase

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 9); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

Given the effects of the COVID-19 global pandemic on international aviation, and despite the recovery since 2020,  $CO_2$  emissions subject to offsetting requirements remained below the 2019 CORSIA baseline in 2021 and 2022. As a result, the CORSIA Annual Sector Growth Factor (SGF) for these two years has been 0%.

Regarding year 2023, estimated  $CO_2$  emissions subject to offsetting requirements are also expected to remain below the 2019 CORSIA baseline. Therefore, the SGF value in 2023 is expected to also be 0%, meaning that **no offsetting requirements are expected during CORSIA's pilot phase**.

<u>Future updates</u> — Official actual 2023  $CO_2$  emissions data will be made available in October 2024, following the publication of the ICAO document *CORSIA Central Registry (CCR): Information and Data for Transparency*, Part III (*Total Annual CO<sub>2</sub> Emissions and Information for Aeroplane Operators*).

## Forward-looking CORSIA Analyses

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slides 15 to 24); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

Given proxy CAEP/13 trends of CO<sub>2</sub> emissions and the 85% of 2019 CORSIA baseline starting in 2024, offsetting requirements are expected to start in 2024 under all CAEP/13 traffic scenarios.

Figure 4 shows the cumulative offsetting requirements from 2021 to 2035; given the proxy CAEP/13 trends of  $CO_2$  emissions and decisions at the 41<sup>st</sup> Session of the ICAO Assembly, **cumulative offsetting requirements (O.R.) from 2024 to 2035 could range from 980 to 1500 MtCO<sub>2</sub>, and 80 to 120 MtCO<sub>2</sub> for CORSIA's first phase. This range of offsetting requirements is within the range presented by CAEP to the Council in June 2022 in the context of the work on the 2022 CORSIA periodic review, where under an 85% of 2019 baseline for 2024-2035, offsetting requirements were estimated to range from 600 to 2100 MtCO<sub>2</sub>.** 



Figure 4: Cumulative offsetting requirements from 2021 to 2035

The "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council included a regional analysis, where a regional distribution of estimated offsetting requirements was made both for "percent CO<sub>2</sub> emissions to offset based on total international aviation CO<sub>2</sub> emissions (Annex 16, Volume IV, Chapter 2)" and for "percent Chapter 3 CO<sub>2</sub> emissions to offset based on total international aviation CO<sub>2</sub> emissions subject to offsetting requirements (Annex 16, Volume IV, Chapter 3)".

In accordance with Annex 16 Volume IV, final offsetting requirements (i.e., demand for emissions units) are calculated by subtracting emissions reductions from CEF from offsetting requirements. The "*Initial Assessments in Support of the 2025 CORSIA Periodic Review*" presented to the 232<sup>nd</sup> Session of the Council included an initial analysis of the CAAF/3 Global Aspirational Vision for 2030, placing it in context of the scenarios for emissions reductions from CEF and offsetting requirements.

Figure 5 shows the estimated offsetting requirements both through 2035 as well as for CORSIA's first phase (2024 - 2026) considering various scenarios for traffic and emissions reductions from CEF.

	Cumulative Final ng Requirements	Emissions Reductions from CEF Scenarios*						5
<b>2021-2035</b> (2024-2026)		<b>No</b> ER from CEF		Low CEF scen (LTAG -TG IS1				
Requirements iffic Scenario)	<b>High</b> Traffic Scenario (proxy CAEP/13)	<b>1510</b> (120)	MtCO <sub>2</sub>		<b>1440</b> (110)	MtCO <sub>2</sub>	<b>1100</b> (105)	MtCO <sub>2</sub>
<b>iffsetting Requiremen</b> t (given Traffic Scenario)	<b>Mid</b> Traffic Scenario (proxy CAEP/13)	<b>1340</b> (105)	MtCO <sub>2</sub>		<b>1300</b> (97)	MtCO <sub>2</sub>	<b>930</b> (92)	MtCO <sub>2</sub>
<b>Offsetting</b> (given Tra	<b>Low</b> Traffic Scenario (proxy CAEP/13)	<b>980</b> (80)	MtCO <sub>2</sub>	1	<b>910</b> (73)	MtCO <sub>2</sub>	<b>570</b> (68)	MtCO <sub>2</sub>

Figure 5: Estimates of final offsetting requirements (i.e., demand for CORSIA Eligible Emissions Units)

<u>Future updates</u> — CAEP/13  $CO_2$  emissions trends and CAEP/13 SAF scenarios for CAEP/13 trends purposes are expected to become available in late September 2024.

#### 1.4 ASSESSMENT OF THE POTENTIAL ROLE OF CORSIA ELIGIBLE FUELS AND CORSIA ELIGIBLE EMISSIONS UNITS

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slides 15 and 29); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

As presented to the 232<sup>nd</sup> Session of the Council, CAEP has developed a comprehensive framework to assess the potential role of emissions reductions from CORSIA Eligible Fuels and CORSIA Eligible Emissions Units towards meeting offsetting requirements.

Figure 6 shows the key steps from the overall supply of emissions reductions from alternative fuels and emissions units to the subset that are or could be claimed under CORSIA to address offsetting requirements.

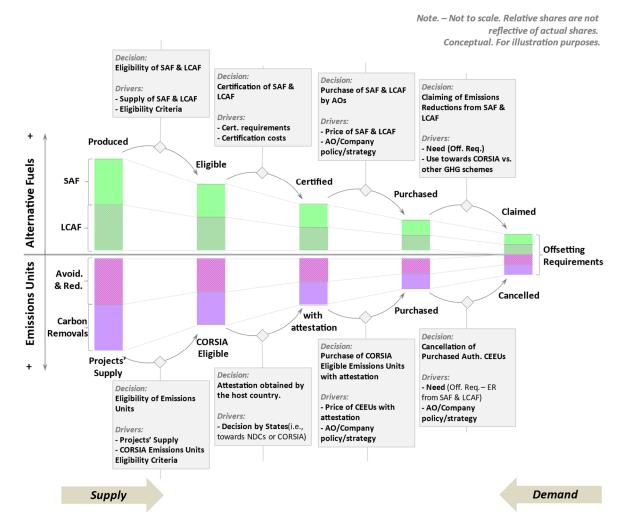


Figure 6: Framework towards the assessment of the potential role of (1) emissions reductions from CORSIA Eligible Fuels and (2) CORSIA Eligible Emissions Units

## Review of CORSIA's pilot phase

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slides 10 to 12); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

The "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the 232<sup>nd</sup> Session of the Council showed that the absence thus far of offsetting requirements during CORSIA's pilot phase does not mean that there is no supply, and that the markets have not prepared to meet potential and future demand.

Regarding emissions units, figures on CORSIA Eligible Emissions Units are based on supply estimates regularly provided by TAB to the Council. Given that, pending information corresponding to year 2023, there are no offsetting requirements in CORSIA's pilot phase, it is unlikely that information will be made available on units purchased or claimed under CORSIA.

# Update since the 232<sup>nd</sup> Session of the Council

Since the 232<sup>nd</sup> Session of the Council, CAEP has compiled updated information regarding the certification of Sustainable Aviation Fuels (SAF) by the two CORSIA-approved Sustainability Certification Schemes (SCSs). Information submitted to the 232<sup>nd</sup> Session of the Council indicated that, in 2022, the production of over 1500 and 33 tonnes of CEF certified against CORSIA requirements had been reported by RSB and ISCC respectively. Since then, information for year 2023 has been made available, indicating that in 2023 a total of 9740 tonnes of neat CEF had been produced and certified towards CORSIA.

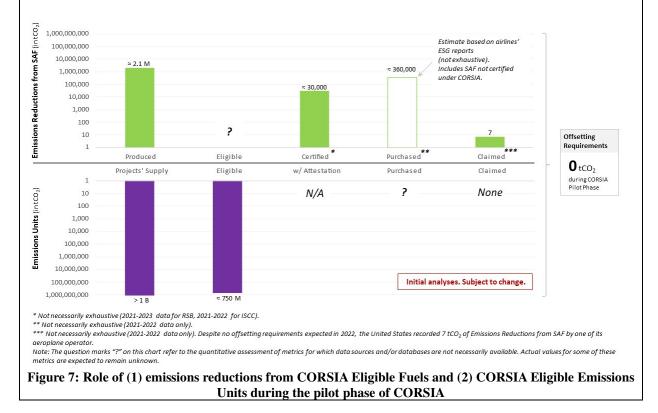


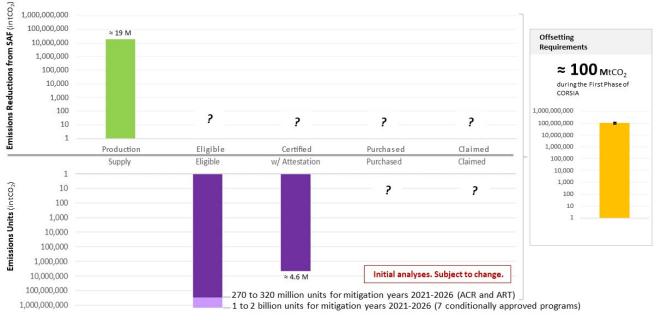
Figure 7 presents an update to the equivalent figure presented to the 232<sup>nd</sup> Session of the Council.

<u>Future updates</u> — CAEP continues to track progress on various aspects related to CORSIA Eligible Fuels and CORSIA Eligible Emissions Units. Updates to the 234<sup>th</sup> Session of the Council may include: further information on SAF purchased on the basis of airlines' ESG reports; and ; updates on supply of pilot phase's CORSIA Eligible Emissions Units, should TAB provide updated information on this item at the 233<sup>rd</sup> Session of the Council.

### Forward-looking CORSIA Analyses

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slides 25 to 32); this information has not been subject to updates in this report to the  $233^{nd}$  Session.

The "*Initial Assessments in Support of the 2025 CORSIA Periodic Review*" presented to the 232<sup>nd</sup> Session of the Council referred to the potential role of emissions reductions from CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in meeting offsetting requirements during CORSIA's first phase (2024-2026) based on a scenario-based analysis on potential CEF claims (see Figure 8).



Note: The question marks "?" on this chart refer to the quantitative assessment of metrics for which data sources and/or databases are not necessarily available, especially for forward looking assessments. Actual values for some of these metrics are expected to remain unknown. As presented in "Initial Assessments in Support of the 2025 CORSIA Periodic Review" to the 233rd Session of the Council, the CAEP has conducted scenario-based analyses of the contribution from Emissions Reductions from CORSIA Eligible Fuels.

#### Figure 8: Potential role of emissions reductions from CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in meeting offsetting requirements during the first phase of CORSIA (2024-2026)

<u>Future updates</u> — Information on this section of the CAEP analysis will be updated on the basis of various inputs, *inter alia*: future updates to the CAEP SAF short-term production database; updated information on CORSIA Eligible Emissions Units and related supply for the first phase, as provided by TAB to the 233<sup>rd</sup> Session of the Council; public announcements on CORSIA Eligible Emissions Units with host country attestation.

## 1.5 ADRESSING OFFSETTING REQUIREMENTS DURING CORSIA'S FIRST PHASE

## **Definition of scenarios**

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 28); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

The "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council included an initial analysis of how offsetting requirements may be addressed during CORSIA's first phase (2024 – 2026). Given the uncertainty in how aeroplane operators may choose to address offsetting requirements (i.e., mix of emissions reductions from CEF and/or CORSIA Eligible Emissions Units), a scenario-based assessment was conducted, with the following three scenarios being presented:

- a) offsetting requirements addressed exclusively with CORSIA Eligible Emissions Units;
- b) offsetting requirements addressed with CORSIA Eligible Emissions Units and emission reductions from SAF (according to the "Low CEF scenario" based on the LTAG-IS1 scenario, biomass-based fuels only); and
- c) offsetting requirements addressed with CORSIA Eligible Emissions Units and emission reductions from SAF (according to "CAAF/3 scenario").

The scenario-based analysis presented to the  $232^{nd}$  Session of the Council suggested that **emissions** reduction from CEF may address up to  $\approx 7\%$  to  $\approx 11\%$  of offsetting requirements ( $\approx 100$  MtCO<sub>2</sub>) during CORSIA's first phase. The remainder (i.e., final offsetting requirements) would need to be addressed using CORSIA Eligible Emissions Units with host country attestation.

## **Price analysis**

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 29 to 31); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

The "*Initial Assessments in Support of the 2025 CORSIA Periodic Review*" presented to the 232<sup>nd</sup> Session of the Council included a price analysis of both CORSIA Eligible Fuels and CORSIA Eligible Emissions Units, with the following main conclusions:

- unit prices of emissions reductions from CEF: the cost abatement (i.e., SAF Premium / tCO<sub>2</sub> abated) from the emissions reductions from SAF could range from ≈ \$600-800 per tCO<sub>2</sub>. The SAF Premium is calculated as the difference between the Unit Price of SAF (≈ \$2.0 per liter in 2024) and the unit price of Conventional Jet Fuel (≈ \$0.7 per liter for 2024).
- unit prices of CORSIA Eligible Emissions Units: based on limited price information and data available, it is expected that average prices of emissions units may range from \$5.70 to \$17.20 per tCO<sub>2</sub> during CORSIA's first phase.

<u>Future updates</u> — Information on this section of the CAEP analysis will be updated on the basis of updated forecast prices of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units.

## Cost analysis

Note — The reference to the information contained in this section is the "Initial Assessments in Support of the 2025 CORSIA Periodic Review" presented to the  $232^{nd}$  Session of the Council (Slide 32); this information has not been subject to updates in this report to the  $233^{rd}$  Session.

On the basis of the three scenarios defined by CAEP and the price analysis for CORSIA Eligible Fuels and CORSIA Eligible Emissions Units, CAEP provided the  $232^{nd}$  Session of the Council with an estimate of the cumulative costs of compliance for CORSIA's pilot phase. CAEP's estimate anticipated that the total cumulative costs associated with addressing offsetting requirements from 2024 to 2026 could range from  $\approx$  \$1 billion using emissions units (only) to  $\approx$  \$8 billion using a mix of emissions units and emissions reductions from CEF given a scenario that accounts for the CAAF/3 vision.

<u>Future updates</u> — Information on this section of the CAEP analysis will be updated on the basis of CAEP/13  $CO_2$  emissions trends (expected to become available in late September 2024) and updated forecast prices of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units.

# PART II — STATUS OF WORK UNDERTAKEN BY CAEP IN RESPONSE TO REQUESTS FROM THE 232ND SESSION OF THE COUNCIL

Note — The information in this section is provided to the Council for the first time, as it is the result of a request by the Council at its  $232^{nd}$  Session.

The Council, having reviewed CAEP's inputs to its 232<sup>nd</sup> Session, emphasized the need for further information to be provided on the supply, regional distribution and price of CORSIA Eligible Emissions Units and CORSIA Eligible Fuels, as a key input to the 2025 CORSIA periodic review.

CAEP's previous CORSIA analyses have contained information on the supply and price of CORSIA Eligible Emissions Units and CORSIA Eligible Fuels, which is regularly updated.

CAEP has initiated work on a **comprehensive assessment of the regional distribution of key metrics underlying the emissions reductions from CEF as well as emissions units; analyses are preliminary and subject to changes pending further data collection. At this stage of the ongoing analyses, CAEP is not making observations on the relative distribution across regions.** CAEP intends to continue its data collection and analyses towards the 234<sup>th</sup> and 235<sup>th</sup> Sessions of the Council and will be in a position to make observations then.

## Review of CORSIA's pilot phase

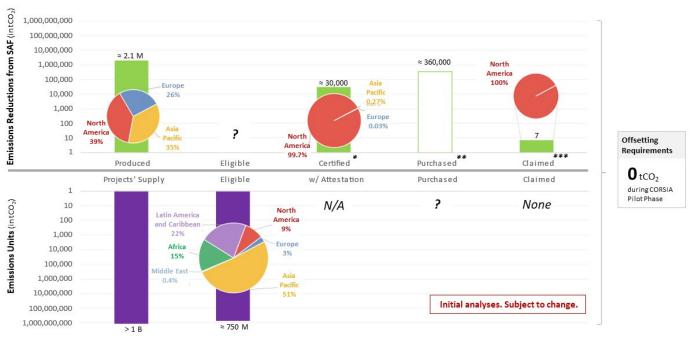
The ongoing analysis of the regional distribution of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in the pilot phase considers the following:

the proxy regional breakdown of SAF production from 2021 to 2023 is based on the production capacity as reported in the ICAO tracker of SAF Facilities based only on a) in service – producing SAF and b) in service – producing other renewable fuels. The regional distribution of certified SAF is based on the "Production location of the neat CORSIA Eligible fuel" (i.e., Field

8.e) in the SCS Reports for 2022 and 2023. The regional distribution of Emissions Reductions from CEF claimed under CORSIA is based on the contextual information of the provider of this ad hoc information i.e., United States.

 the regional distribution of CORSIA Eligible Emissions Units is based on information from the TAB report to the 230<sup>th</sup> Session of the Council.

Figure 9 depicts the initial results of CAEP's ongoing analysis of the regional distribution of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in the pilot phase.



\* Not necessarily exhaustive (2021-2023 data for RSB, 2021-2022 for ISCC).

\*\* Not necessarily exhaustive (2021-2022 data only).

\*\*\* Not necessarily exhaustive (2021-2022 data only). Despite no offsetting requirements expected in 2022, the United States recorded 7 tCO<sub>2</sub> of Emissions Reductions from SAF by one of its aeroplane operator.

Note: The question marks "?" on this chart refer to the quantitative assessment of metrics for which data sources and/or databases are not necessarily available. Actual values for some of these metrics are expected to remain unknown.

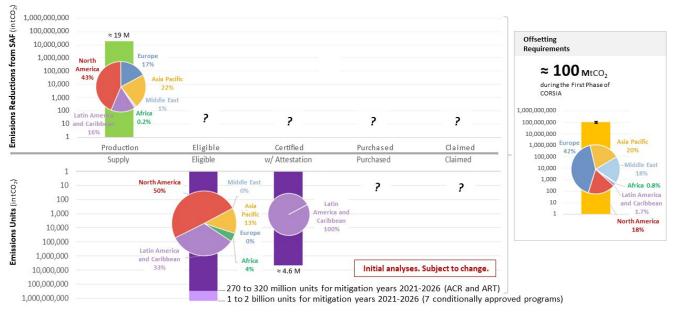
#### Figure 9: Regional Distribution of Emissions Reductions from CEF and Emissions Units during the pilot phase of CORSIA (2021-2023

#### Forward-looking CORSIA Analyses

The ongoing analysis of the regional distribution of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in the first phase considers the following:

- the proxy regional breakdown of SAF production from 2024 to 2026 is based on the production capacity as reported in the ICAO tracker of SAF Facilities based only on information from all announcements.
- the regional distribution of CORSIA Eligible Emissions Units is based on information from the TAB report to the 230<sup>th</sup> Session of the Council; the distribution of CORSIA Eligible Emissions Units with attestation come from a single data point (announcement regarding Guyana's project and attestation).

Figure 10 depicts the initial results of CAEP's ongoing analysis of the regional distribution of CORSIA Eligible Fuels and CORSIA Eligible Emissions Units in the first phase.



Note: The question marks "?" on this chart refer to the quantitative assessment of metrics for which data sources and/or databases are not necessarily available, especially for forward looking assessments. Actual values for some of these metrics are expected to remain unknown. As presented in "Initial Assessments in Support of the 2025 CORSIA Periodic Review" to the 233<sup>rd</sup> Session of the Council, the CAEP has conducted scenario-based analyses of the contribution from Emissions Reductions from CORSIA Eligible Fuels.

Figure 10: Regional Distribution of Supply including: (1) emissions reductions from CEF and (2) emissions units along with demand based on offsetting requirements during the first phase of CORSIA (2024-2026)

## PART III — UPDATED SHCEDULE OF CAEP'S INPUTS IN SUPPORT OF THE 2025 CORSIA PERIODIC REVIEW

**Subject to any additional request for inputs that the Council may direct to CAEP**, this section provides information on CAEP's schedule of updates to its inputs to Council to support the latter's work on the 2025 CORSIA periodic review.

## 234<sup>th</sup> Session of the Council (March 2025):

- Key inputs to the CORSIA Analyses expected to be updated:
  - a) CAEP/13 CO<sub>2</sub> emissions trends.
  - b) TAB's analysis on the supply of CORSIA Eligible Emissions Units, based on TAB's recommendations from the 2024 assessment on the eligibility of programmes for CORSIA's first phase (2024-2026), submitted to the 233<sup>rd</sup> Session of the Council (November 2024).
  - c) Forecast prices for CORSIA Eligible Emissions Units.
  - d) 2023 CO<sub>2</sub> emissions data reported through the CORSIA Central Registry (CCR).
- Update level: high.

- Areas of CORSIA Analyses subject to update:
  - a) Backward looking assessment of the pilot phase (2023 data to be available in late 2024).
  - b) Estimates of volume of offsetting requirements.
  - c) Regional distribution of offsetting requirements by ICAO Region.
  - d) Scenarios for emissions reductions from CORSIA Eligible Fuels.
  - e) Costs associated with offsetting requirements (i.e., emissions reductions from CORSIA Eligible Fuels and CORSIA Eligible Emissions Units).

## 235<sup>th</sup> Session of the Council (June 2025):

- Key inputs to the CORSIA Analyses expected to be updated:
  - a) FTG SAF Production Short Term database (expected to be available around April 2025).
  - b) Forecast prices for CORSIA Eligible Emissions Units.
- Update level: high.
- Areas of CORSIA Analyses subject to update:
  - a) Scenarios for emissions reductions from CORSIA Eligible Fuels.
  - b) Costs associated with offsetting requirements (i.e., emissions reductions from CORSIA Eligible Fuels and CORSIA Eligible Emissions Units).

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