61ST CONFERENCE OF DIRECTORS GENERAL OF CIVIL AVIATION ASIA AND PACIFIC REGION

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

MANAGING CEEU PRICE VOLATILITY AND PROCUREMENT RISK FOR AIRLINES

(Presented by Malaysia)

INFORMATION PAPER

SUMMARY

This paper draws attention to the price volatility and procurement risk that aeroplane operators face in acquiring CORSIA Eligible Emissions Units (CEEUs), particularly as demand is expected to rise sharply from 2027. It invites the Conference to consider requesting ICAO to improve market transparency, including forward-looking supply information, and to encourage the development of practical risk-management tools such as coordinated or pooled procurement approaches to help operators manage cost uncertainty in a manner that preserves CORSIA's environmental integrity and market stability.

MANAGING CEEU PRICE VOLATILITY AND PROCUREMENT RISK FOR AIRLINES

1. INTRODUCTION

1.1 At the 41st Session of the ICAO Assembly, Member States adopted the Long-Term Global Aspirational Goal (LTAG) of net-zero carbon emissions from international aviation by 2050, with CORSIA recognised as a key measure in the basket of measures supporting this goal.

1.2 Under CORSIA implementation, aeroplane operators subject to offsetting requirements must acquire CEEUs to cover the portion of their emissions growth above baseline levels that is not addressed through in-sector measures such as Sustainable Aviation Fuel (SAF). The price and availability of CEEUs is therefore a direct and material factor in an operator's cost of compliance.

1.3 As CORSIA progresses into its compliance stage, and particularly as participation becomes mandatory for all ICAO Member States from 2027, demand for CEEUs is expected to increase substantially. This paper examines the risks posed by price volatility and procurement uncertainty in the CEEU market to operators and invites the Conference to consider possible measures to help manage these risks.

1.4 This paper complements the ongoing discussion on the availability of CEEUs by focusing specifically on price behaviour and the practical procurement challenges operators face, rather than on supply-side measures alone.

2. DISCUSSION

2.1 International aviation continues to face significant cost pressures arising from fuel prices, sustainability investments and broader economic uncertainty. According to IATA, fuel is expected to account for approximately 25 – 31% of total airline operating costs, while Sustainable Aviation Fuel (SAF) generally remains significantly more expensive than conventional Jet A-1 fuel. *(Sources: IATA Airline Industry Economic Outlook; IATA SAF Market Outlook.)*

2.2 As CORSIA progresses into its mandatory implementation phase from 2027, aeroplane operators will increasingly rely on CORSIA Eligible Emissions Units (CEEUs) to meet offsetting requirements that are not addressed through operational improvements or SAF usage. Consequently, the price and availability of CEEUs will become an increasingly important component of airline compliance costs. According to ICAO's CEEU Dashboard, approximately 37.5 million tonnes of eligible emissions units are currently available under approved programmes. *(Source: ICAO CEEU Dashboard, 2026.)*

2.3 Independent market assessments estimate cumulative First Phase demand for CEEUs between approximately 146 million and 236 million tonnes of CO_2, depending on factors such as air traffic growth, SAF deployment and future emissions trajectories. *(Sources: Trove Research Carbon Market Outlook; MSCI Carbon Markets Outlook.)*

2.4 While additional eligible projects and programmes may increase future supply, current market indicators suggest that demand could exceed presently available units by several times. This may create conditions for tighter market supply and increased price volatility, particularly as compliance deadlines approach.

2.5 Market assessments indicate that CORSIA-eligible carbon credits are currently trading at approximately USD 20 - 25 per tonne of CO_2. Several scenario analyses suggest that prices could increase to between USD 25 and USD 60 per tonne under more constrained supply conditions, although actual outcomes will depend on market developments and future supply growth. *(Sources: BloombergNEF; MSCI Carbon Markets Outlook.)*

2.6 The potential financial impact on operators could be significant. For example, an airline requiring 5 million tonnes of CEEUs annually would incur costs ranging from approximately USD 105 million at USD 21 per tonne to USD 300 million at USD 60 per tonne. Such variability may affect budgeting, fleet investment planning, and sustainability strategies.

2.7 Unlike established fuel markets, the market for CORSIA eligible emissions units remains relatively new and fragmented. Forward-looking information regarding future supply, issuance volumes and market trends is limited, which may make procurement planning more challenging, particularly for smaller carriers and operators in developing States.

2.8 To manage procurement risks, operators may consider voluntary measures such as phased purchasing, portfolio diversification across eligible programmes, and coordinated procurement arrangements that improve market intelligence and reduce transaction costs. Any pooled procurement initiatives should remain voluntary and comply with applicable competition laws and national regulations.

2.9 ICAO could support more efficient market functioning by enhancing transparency through additional forward-looking information on CEEU supply and market developments and by developing non-binding guidance on procurement planning and risk management. Such measures would assist operators in managing cost uncertainty while preserving the environmental integrity and market-based nature of CORSIA.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to:

a) note the price volatility and procurement risk that aeroplane operators face in acquiring CEEUs and the potential for this risk to increase as CORSIA enters its mandatory phase from 2027;

b) request ICAO to examine opportunities to enhance transparency of the CEEU market, including publication of additional forward-looking market information;

c) encourage ICAO to develop non-binding guidance on procurement planning and risk-management approaches for aeroplane operators;

d) encourage States and industry stakeholders to share experiences and lessons learned regarding voluntary coordinated and pooled procurement approaches; and

e) request the ICAO Asia and Pacific Regional Office to facilitate regional information sharing on CEEU market developments during the 2027 - 2029 compliance period.

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