

**59<sup>th</sup> CONFERENCE OF  
DIRECTORS GENERAL OF CIVIL AVIATION  
ASIA AND PACIFIC REGIONS**

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AGENDA ITEM 7: AVIATION AND ENVIRONMENT

**ACI APAC & MID “NET ZERO ROADMAP DECARBONISE  
YOUR AIRPORT PROGRAMME”**

Presented by Airports Council International

**SUMMARY**

This paper outlines the development and implementation of the new on-demand service “Net Zero Roadmap Decarbonise Your Airport” programme designed to assist airports in the Asia-Pacific and Middle East (APAC & MID) regions in achieving net zero carbon emissions. The programme includes a structured sequence of processes involving data collection, onsite assessment, expert analysis, and the creation of a tailored roadmap towards net zero carbon emissions and Level 5 of Airport Carbon Accreditation (ACA).

## **ACI APAC & MID NET ZERO ROADMAP DECARBONISE YOUR AIRPORT PROGRAMME**

### **1. INTRODUCTION**

1.1 The aviation industry plays a crucial role in global connectivity and economic development, facilitating the movement of people and goods across vast distances. This contributing approximately 2-3% of global CO<sub>2</sub> emissions. Airports, as essential hubs within this sector, are pivotal in the efforts to reduce the aviation industry's carbon footprint. The need for airports to adopt sustainable practices has never been more urgent, particularly in light of increasing global temperatures and the intensifying impacts of climate change.

1.2 Airports around the world are increasingly recognising the importance of committing to ambitious climate targets. These commitments are aligned with global efforts such as the Paris Agreement, which aims to limit global warming to well below 2 degrees Celsius above pre-industrial levels. In the Asia-Pacific region, the urgency for decarbonisation is particularly pronounced because this region is expected to witness significant growth in air travel demand, with passenger traffic projected to more than double by 2040.

1.3 Such growth presents both opportunities and challenges. On one hand, it underscores the critical role of airports in supporting economic development and connectivity. On the other hand, it highlights the need for sustainable infrastructure development to accommodate this growth without exacerbating environmental impacts. Airports must therefore adopt innovative solutions and collaborate with stakeholders to achieve their sustainability goals while continuing to support the aviation industry's expansion.

1.4 In Asia-Pacific and Middle East regions, there are already 30 States and territories, and 34 airports in the regions that have pledged net zero carbon emissions goals but not all of them have a clear and publicly available roadmap or pathways to reach these goals.

1.5 The global airport sector has its flagship voluntary recognition programme - Airport Carbon Accreditation. The programme provides a unique common framework and tool for active carbon management at airports with measurable results. As of July, more than 570 airports worldwide have been accredited representing more than 54% global traffic including 84 airports in Asia-Pacific and the Middle East representing 34.6% regional traffic.

1.6 The 'Net Zero Roadmap Decarbonise Your Airport' Programme, initiated by ACI APAC & MID, is an on-demand service designed to provide airports with the tools and guidance necessary toward net zero carbon emissions. This comprehensive programme involves a detailed analysis of current airport carbon emissions, the identification of potential areas for improvement and the development of a tailored roadmap to guide airports through the decarbonisation process. By engaging with this programme, airports can not only reduce their carbon emissions but also enhance their operational efficiency and resilience in the face of future challenges.

### **2. DISCUSSION**

#### **2.1 Key objectives of the programme**

The programme is designed to provide airports with a comprehensive and actionable plan and roadmap to achieve net zero carbon emissions. The key objectives of programme include:

- Assess current carbon footprints: Evaluate airport's current emissions across Scope 1 (direct emissions), Scope 2 (indirect emissions from purchased electricity), and Scope 3 (other indirect emissions);
- Develop comprehensive list of measures: Generate a broad range of potential

measures to reduce emissions, tailored to the unique context and needs of each airport;

- Create timeline and CAPEX plan: Establish clear timeline and capital expenditure plan to guide the implementation of emission reduction measures, ensuring that airports can achieve their targets efficiently and effectively;
- Provide guidance to achieve net zero carbon emissions and Level 5 of ACA: Support to help airports towards net zero carbon emissions and Level 5 of the Airport Carbon Accreditation, which represents the highest standard of carbon management and reduction; and
- Connect with financial institutions for a net zero funding programme: Linkup airports with financial institutions aim to secure funding for their decarbonisation initiatives.

## 2.2 Methodology

2.2.1 The programme follows a systematic and structured approach to ensure that airports can effectively plan and implement their decarbonisation strategies towards net zero carbon emissions. The key steps in this methodology include:

- **Data Collection and Analysis:** Airport provide detailed data on their operations, energy consumption, and emissions. This data will be validated and analysed to establish a comprehensive baseline carbon footprint, which serves as the foundation for all subsequent planning.
- **Onsite Assessment:** Expert team conduct thorough onsite assessments to verify and gather additional information, observe airport operation firsthand, and identify specific opportunities for improvement. These assessments involve detailed reviews of energy-consuming activities, infrastructure, and operational practices.
- **Development of Measures:** Based on the data collected and insights gained from the onsite assessment, a comprehensive list of potential measures is generated. These measures are evaluated against benchmarks and industry standards to gauge their effectiveness and feasibility to the airport.
- **Pathway Formulation:** Different scenarios and pathways to net zero carbon emissions are developed and evaluated. Specific targets and milestones are set to guide the implementation process, ensuring that airport can track their progress and make adjustments as needed.
- **Finalization and Implementation:** The final roadmap, including detailed CAPEX plans and action steps are reviewed and finalized in close collaboration with the airport. This ensures that the roadmap is tailored to the airport's specific context and needs.
- **Connect with financial institutions:** ACI APAC & MID will facilitate the connection with financial institutions such as Asian Development Bank and World Bank aim to secure funding for airport's decarbonisation initiatives.

## 2.3 Programme development

2.3.1 The Programme has so far been approved by the ACI APAC & MID Regional Board and endorsed by Airport Carbon Accreditation. In 2024, two airports in the Middle East and one in the Asia-Pacific region were strategically appointed to pilot the programme. The early experience and insights gained from these pilot locations will be used to improve the programme until its full launch in

2025, ensuring a robust and effective rollout across the regions.

**3. ACTION BY THE CONFERENCE**

3.1 The Conference is invited to:

- a) Note the information presented in this discussion paper;
- b) Recognize the need for airports to develop a roadmap to decarbonization;
- c) Encourage airports in the Asia-Pacific region to consider participating in the ACI “Net Zero Roadmap Decarbonise Your Airport” programme to establish such a roadmap; and
- d) Discuss the potential challenges and solutions for implementing the roadmap at various airports.

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