Transforming the global aviation sector: Emissions Reductions from International Aviation

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Introduction

State Action Plan

ICAO-UNDP-GEF project

Project is comprised of four components
Component 1 of the project
Component 2 of the project

DEVELOPMENT OF 4 GUIDANCE DOCUMENTS TO FACILITATE LOW EMISSIONS AVIATION IN DEVELOPING STATES AND SIDS

Enhancing States’ policy framework and strengthening their national capacities through a series of guidance documents.

4 UNIQUE GUIDANCE MATERIALS FOR ICAO MEMBER STATES:

1. Renewable Energy for Aviation: Practical Applications to Achieve Carbon Reductions and Cost Savings
2. Financing Aviation Emissions Reductions
3. Regulatory and Organizational Framework to Address Aviation Emissions
4. Sustainable Aviation Fuels Guide
Component 3 of the project

3 ICAO INTEGRATED ENVIRONMENTAL TECHNICAL PLATFORM

A platform to support the implementation of low emissions measures in the aviation sector.
Sharing knowledge and resources, as well as other outreach initiatives through an integrated environmental technical platform.

LOW-CARBON AVIATION KNOWLEDGE-SHARING PLATFORM

This interactive “Low-carbon Aviation Knowledge-sharing Platform” provides informative resources and ICAO tools, as well as relevant guidance documents on aviation and environment to ICAO Member States. It will be accessible through the ICAO public website.
Component 4 of the project

4 PILOT PROJECT ON AVIATION LOW EMISSIONS MEASURES

Implementation of a pilot project for emissions reduction in Jamaica

1. Installation of gate electrification equipment with energy supplied by solar power to replace jet fuel-powered Auxiliary Power Units (APUs) and diesel-fueled Ground Power Units (GPU) at two international airports in Jamaica

2. Facilitate the replicability of this solar technology at airports, thus equipping developing States and SIDS with tools to carry out similar projects
The Pilot Project in Jamaica (1/3)
The Pilot Project in Jamaica (2/3)
The Pilot Project in Jamaica (3/3)

**REPLICABLE PILOT PROJECT**

- The "solar-at-gate" pilot project is easily replicable.
- Through this pilot project, direct emissions reductions at the gate are demonstrated and documented.
- The electrical gate units are retrofitted to existing jet bridges and the solar power system can be located on available airport-secured lands.
- Documentation related to the pilot project will be shared with all ICAO Member States.
- All States can implement similar projects using a variety of possible financing mechanisms, including through their own GEF national allocation.

- A project combining solar and electric gate power is a unique solution.
- The replacement of carbon intensive electricity from the use of jet fuel-powered APU's and diesel-fueled GPUs with a gate electrification retrofit project powered by solar energy is an effective, measurable and easily replicable way to reduce emissions.

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Summary

1. Marginal Abatement Cost (MAC) curve
2. Four unique publications
3. An online platform to enable knowledge-sharing
4. A pilot project for “solar-at-gate” at Kingston International Airport and a gate electrification project at Montego Bay International Airport.