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WORKING PAPER

CONFERENCE ON AVIATION AND ALTERNATIVE FUELS

Rio de Janeiro, Brazil, 16 to 18 November 2009

Agenda Item 3: Production and infrastructure

FACILITATING ACCESS TO FINANCIAL RESOURCES, TECHNOLOGY TRANSFER AND CAPACITY BUILDING

(Presented by the Secretariat)

SUMMARY

Aviation alternative fuels present an important opportunity to reduce air transport's carbon footprint. In order to overcome the initial market hurdles, substantial incentives and investment may be necessary to promote the use of aviation alternative fuels. A financing framework to promote development and deployment of aviation alternative fuels is required. Developing States are in special need of such financing arrangements. A focused group could assist in definition of a financing framework.

1. INTRODUCTION

1.1 In its Declaration, the ICAO High Level Meeting (HLM) recommended that the ICAO Council "further elaborate on measures to assist developing States as well as to facilitate access to financial resources, technology transfer and capacity building including possible application of flexible mechanisms under UNFCCC, such as Clean Development Mechanism (CDM), to international aviation."

1.2 Although the above Declaration relates to the overall issue of international aviation and climate change, the development and deployment of aviation alternative fuels presents unique challenges due to the large capital investment required and the relatively small size of the market (reference IP/10 from US on details on these issues).

1.3 The promise of the future for sustainable alternative fuel for aircraft rests on three building blocks:

- Markets: Airlines must confirm that the demand for alternative jet fuel is reliable, deep, and accessible. Without a predictable market, investments in new fuels will not be made or the fuels will supply other markets such as trucking for transportation fuels. Also, new markets for co-products of the fuel production process must be nurtured with a view to ensuring the financial viability of new production processes.

These markets may represent significant opportunities for the regions that develop them: new jobs, new businesses, and new prosperity.

- Infrastructure: Fuel producers and suppliers must establish scalable links between production facilities and airports (including tankage, blending facilities, quality assurance labs) to ensure rapid, consistent, reliable fuel transport that meets airlines demanding dispatch requirements. The new infrastructure must mesh harmoniously with existing fuel delivery systems.

- Financing: States must recognize that R&D requires significant support in the near term. Pilot and commercial scale facilities will need incentives and support to advance the speed of deployment.

1.4 It must also be noted that, in accordance with the HLM recommendations, ICAO has already taken steps in the direction of facilitating discussions on financing mechanism. Some of these discussions took place on the sidelines of the HLM and immediately after the HLM. Several financial institutions agreed to participate and contribute to the present Conference. Concrete discussions need to take place now to translate ideas into practical actions.

1.5 This paper explores the linkages between stakeholders that can be used to facilitate financing at different points in the supply chain.

2. EXPLORATION OF LINKAGES

2.1 It has often been noted that climate change is expected to affect developing countries the hardest. While the effects of climate change such as higher temperatures, changes in rainfall, rising sea levels, and more frequent natural disasters impact developing countries disproportionately, there may be additional risks for them in an unbalanced development of alternative fuels. At the same time, an optimum and considered development of alternative fuels may provide an opportunity to developing nations for environmental and economic sustainability. It is of utmost importance that alternative fuels fit into an overall energy, climate, land-use, water and agricultural strategy if their deployment is to benefit society, the economy and the environment as a whole.

2.2 States and international financial institutes have a key role to play in incentivizing and providing finances to accelerate development and deployment of credible and sustainable alternative fuels. There needs to be a globally harmonized approach that is capable of being tailored to the differing needs of developing country partners. The existing partnerships need to be strengthened and new ones developed to ensure win-win solutions.

2.3 At the global level, the World Bank can be instrumental in developing a plan for more investments in clean energy in the developing world, in cooperation with other international financial institutions. This effort can help in tapping new business opportunities for developing countries and helping them cope with new risks. At regional levels, financial institutions such as the Inter-American Development Bank and the Asian Development Bank can play the same role that the World Bank plays at the global level.

2.4 In the future there may be some linkages between CDM or Joint Implementation (JI) initiatives under the UNFCCC and investments in production plants and accompanying infrastructure projects for aviation alternative fuels. This linkage between funds generated under various umbrellas (e.g. charges, taxes, trading) and mitigation activities specific to aviation needs to be clarified.

2.5 The key areas of investment would include the following:

- Production of feedstock (crops, algae, etc.);
- Conversion of feedstock into aviation fuel; and
- Transportation and storage infrastructure between feedstock and conversion facilities on one hand and between fuel production and airports on the other hand.

2.6 Clearly, for the first two aspects, fuel and energy producers are the key stakeholders. The investments required, especially for conversion/production plants, can be heavy. Similarly, the transportation and storage issues impact airports and airlines using these fuels. If, for instance, aviation alternative fuels are not cost competitive with traditional jet fuel in the outset, incentives for such use must be provided until the initial market hurdles have been overcome.

3. CONCLUSIONS AND RECOMMENDATIONS

3.1 The Conference on Aviation and Alternative Fuels is requested to:

a) endorse the urgent need of measures to facilitate access to financial resources, technology transfer, and capacity building specific to aviation alternative fuels; and

b) request ICAO to establish a group involving key States, financial institutions, fuel producers, and operators leading to a framework for financing infrastructure development projects dedicated to aviation alternative fuels.

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