



## **HIGH-LEVEL MEETING ON THE FEASIBILITY OF A LONG-TERM ASPIRATIONAL GOAL FOR INTERNATIONAL AVIATION CO<sub>2</sub> EMISSIONS REDUCTIONS (HLM-LTAG)**

**Montréal, 19 to 22 July 2022**

**Agenda Item 1: CO<sub>2</sub> emissions reduction scenarios and options for a long-term global aspirational goal for international aviation**

### **CLIMATE ACTION FROM AIRLINES IN SUPPORT OF INDUSTRY DECARBONISATION**

(Presented by International Air Transport Association)

#### **SUMMARY**

The information paper presents action being undertaken by the airline sector to address its climate impacts and enable its substantial contribution to help achieve the global aviation industry goal of net-zero carbon emissions by 2050. The air transport sector has taken a proactive, collaborative and ambitious approach to dealing with its climate change impact, including by all sub-sectors in the industry.

## **1. COMMITMENT TO CLIMATE ACTION**

1.1 At its 77th Annual General Meeting in October 2021, IATA approved an historic resolution<sup>1</sup> for global air transport to achieve net-zero emissions by 2050. This commitment is aligned with the Paris Agreement goal for global warming not to exceed 1.5°C. Achieving net zero emissions requires airlines to progressively reduce emissions while accommodating growing demand for connectivity and economic activity which aviation supports. The strategy looks at how to abate as much CO<sub>2</sub> as possible from in-sector solutions such as sustainable aviation fuels, new aircraft technology, more efficient operations and infrastructure, as well as accelerating the development of new zero-emissions energy sources such as electric and hydrogen power. Any emissions that cannot be eliminated at source will be eliminated through out-of-sector options such as carbon capture and storage and credible offsetting schemes.

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<sup>1</sup> Resolution on the industry's commitment to reach net zero carbon emissions by 2050: <https://www.iata.org/contentassets/dcd25da635cd4c3697b5d0d8ae32e159/iata-agm-resolution-on-net-zero-carbon-emissions.pdf>

1.2 As a result, the collective air transport sector raised its ambition with a new long-term climate commitment: global civil aviation operations will achieve net-zero carbon emissions by 2050, supported by accelerated deployment of a comprehensive program of effective emissions reduction, energy transition and innovation across the aviation sector.

1.3 All parts of the aviation industry are committed to making the net-zero carbon goal a reality. Airlines around the globe are already undertaking an extensive range of measures that reduce global aviation emissions. These efforts are supported by IATA, offering various programs to airlines that assist with the decarbonization efforts. The industry is determined to continue and further accelerate the efficiency improvements and CO<sub>2</sub> emission reductions but it also understands that climate challenge requires critical partnership with governments.

1.4 The agreement of a Long-Term Aspirational Goal (LTAG) at ICAO level which is aligned to the industry's commitment will be an important facilitator for achieving net zero ambition by 2050.

## **2. AIRLINE SECTOR MEASURES FOR AVIATION EMISSIONS REDUCTION**

### **2.1 Continued Fuel Efficiency Improvement**

2.1.1 Through the introduction of new aircraft technologies, more efficient operations and infrastructure improvements, the airline industry is exceeding its short-term climate action goal with analysis from 2019 (prior to Covid-19 impacts) showing a 2.1% improvement on a rolling average – an efficiency improvement of 22.8% since 2009.<sup>2</sup>

2.1.2 Airlines are implementing significant performance improvements in operational aspects. Operational measures include identifying weight savings in the current fleet, allowing the aircraft to burn less fuel. Airlines have been investing in lightweight seats and cabin equipment and even replacing heavy pilot manuals. Other examples of operational measures include single-engine taxiing and idle reverse thrust. The Resolution mentioned in paragraph 1.1 also urges IATA member airlines to implement all available fuel efficiency measures to continue the industry's efficiency improvement, including investing in fleet replacement, undertaking operational measures and working with industry partners to make greater strides in infrastructure measures.

### **2.2 Energy Transition**

2.2.1 As the sector explores electric and hybrid propulsion opportunities which may enter service in the mid- to long-term, the transition towards Sustainable Aviation Fuels (SAF) brings with it significant CO<sub>2</sub> reductions and forms an essential building block in the sector's basket of measures for mid- and long-haul flights. The industry is now progressing on the energy transition away from fossil fuels and towards SAF, produced from a range of sources, including sustainable biomass, waste and synthetic options.

2.2.2 A review of progress for SAF usage in 2022 reveals over 450,000 flights using a proportion of SAF, with IATA expecting this to increase to 2 million flights by 2025. From the production side, the capacity is currently 150 million litres per annum, with USD 17 billion in SAF offtake agreements already signed between airlines and fuel suppliers. By 2025, IATA expects over 5 billion litres per annum being produced and over USD 30 billion in offtake commitments from airlines.

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<sup>2</sup> ATAG Fact Sheet: Tracking aviation efficiency: [https://aviationbenefits.org/media/167475/fact-sheet\\_3\\_tracking-aviation-efficiency-v2.pdf](https://aviationbenefits.org/media/167475/fact-sheet_3_tracking-aviation-efficiency-v2.pdf)

2.2.3 A number of opportunities for expanding SAF production pathways are being progressed but the key now is to significantly scale up production which will also help reduce the cost of these fuels. Government support will be essential to help with this required transition. With the right incentive schemes, IATA is projecting a production capacity of 30 billion litres per annum by 2030 as the tipping point for widely available SAF at affordable prices.

### 2.3 Voluntary offset programs

2.3.1 Airlines are also implementing voluntary offset programs, which allow airline passengers and corporate customers to “neutralise” their portion of an aircraft’s carbon emissions on a particular journey by investing in carbon reduction projects. Over 40 IATA member airlines have introduced an offset program either integrated into their web-sales engines or as a “click-away” to a third-party offset provider.

2.3.2 Some airlines already offer new and alternative means of CO<sub>2</sub> compensation, for example complementing offsets with the possibility to invest in SAF. The carbon offset program of airlines offers passengers a wide range of high-quality carbon reduction projects, with carbon credits stemming from renewable or forestry projects in developing countries. Many of the high-quality projects offer carbon reductions and impactful socio-economic co-benefits, such as employment, health improvements, and gender equality, with a positive impact on local communities and the ability to address various UN’s Sustainable Development Goals.

2.3.3 To improve emissions transparency, IATA has developed in 2022 the industry standard (RP1622) for calculating per passenger CO<sub>2</sub> emissions. The standard intends to harmonize CO<sub>2</sub> calculations while enabling the global distribution of CO<sub>2</sub> data to travel management companies, online travel agents, airlines, and travel search engines.

## 3. PRORITIES FOR THE INTERNATIONAL AIR TRANSPORT ASSOCIATION TO ASSIST MEMBERS CLIMATE ACTION

### 3.1 Need for smart policies to ramp up SAF production and a global approach to sustainability

3.1.1 Government incentives are the most effective policy tool to reduce risk and accelerate the energy transition, supporting stronger business cases for investment during the scale up phase and allowing supply and demand to develop into a sustainable market. IATA actively participates in a number of consultations on policy options and is able to verify that policies that are reliant on mandates, either national and regional level, are not an effective tool for advancing deployment of affordable SAF, especially when a mandate is not accompanied by necessary positive measures to boost technology development, feedstock scale-up and support affordable SAF prices. IATA urges governments to set positive policies that would provide incentive programs or direct financial project support, as such measures would not only boost local SAF availability but also stimulate national innovation and jobs in new technology and sustainable applications.

3.1.2 Any SAF being used by the sector must meet globally agreed sustainability criteria to provide the necessary assurance that there is no harm to biodiversity, land-use, food or water systems, or local populations. IATA supports the adoption of a broader set of sustainability criteria for SAF claimed under CORSIA and the continuing work in ICAO to complement the core requirements already adopted by the ICAO Council.

3.1.3 A globally harmonized approach to sustainability will provide clarity that will help to remove barriers to the ramp up of SAF, enable mutual recognition across governments, while supporting investment in this vital segment. In this respect, and also to avoid a patchwork of conflicting policies, IATA encourages

ICAO to consider the potential to develop and coordinate SAF uptake goals for international air transport operations which would be aligned to an adopted LTAG ambition.

### **3.2 Development of a global SAF book and claim mechanism**

3.2.1 IATA is of the view that the introduction of a global SAF Book and Claim (B&C) mechanism will be instrumental in providing the global accounting framework that will support the objective of a functioning and efficient SAF market to promote scale up and ultimately reduce prices. Supported by member airlines, IATA is collaborating with the Roundtable on Sustainable Biomaterials (RSB) and the Council on Sustainable Aviation Fuels Accountability (CoSAFA) to develop flexible and robust SAF accounting mechanisms and the necessary registries to avoid double claiming. These mechanisms, including B&C, will help reduce supply and logistic barriers for SAF, particularly at an early market stage, when scarce SAF availability will remain concentrated in a few locations. B&C would also provide a level playing field for SAF producers globally and maximize environmental benefits by lifting the necessity of making SAF available at every single airport, thus reducing emissions from product transport.

### **3.3 Collaboration of key stakeholders and airline capacity building**

3.3.1 IATA actively engages with member airlines, government authorities, aircraft manufactures to promote airline uplift of SAF. A very recent example is the first collective purchase of SAF to launch flights out of Los Angeles and Calgary through a joint initiative led by IATA and Boeing.<sup>3</sup>

3.3.2 As well, IATA is launching a series of comprehensive programs to support the development and transfer of best practices in SAF sourcing, procurement and accounting readiness across all members.

### **3.4 Tracking Progress to Net Zero**

3.4.1 Understanding that the tracking of overall emissions will not be sufficient to understand the progress made towards net-zero, IATA is embarking on a program to track developments across member airlines. The program will collect and assess data needed for tracking industry progress in relation to CO<sub>2</sub> emissions generated during flying activity, including any associated CO<sub>2</sub> reductions stemming from the deployment of technology advancements or carbon offsetting (e.g., carbon avoidance or carbon removal).

3.4.2 To capture efficiency improvements and the impact of CO<sub>2</sub> reduction in relation to the use of SAF, carbon intensity will become the focus of measurement, making the progress visible. Examples of carbon intensity metrics could be: kgCO<sub>2</sub>/RPK, kgCO<sub>2</sub>/ATK, kgCO<sub>2</sub>/RTK.

## **4. CONCLUSION**

4.1 The airline industry has undertaken a firm commitment to achieve net zero emissions by 2050 and good progress has commenced on this journey. Airlines and IATA are undertaking a broad series of actions and aligned government support to assist in the energy transition will be important to reaching this goal.

4.2 IATA therefore positively encourages the adoption of a long-term aspirational goal by ICAO that is aligned with broader international climate policy, the Paris Agreement, and the aviation industry commitment to achieve net zero emissions by 2050.

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<sup>3</sup> [https://www.westjet.com/en-ca/news/2022/westjet-operates-first-sustainable-aviation-fuel-flight-between-?sm\\_cid=social%3Aaws-world%3Aenvironmental-%28esg%29%3Atwitter%3A20220607](https://www.westjet.com/en-ca/news/2022/westjet-operates-first-sustainable-aviation-fuel-flight-between-?sm_cid=social%3Aaws-world%3Aenvironmental-%28esg%29%3Atwitter%3A20220607)

4.3 IATA recommends a collective target that does not assign any specific targets to individual States and operators. Also, recognising the special circumstances and respective capabilities of States and that the potential emissions reduction measures will vary greatly between regions and operators, an LTAG under ICAO should emphasize the importance of collective action and collaboration, notably through capacity-building.

4.4 IATA encourages the adoption of a LTAG that recognizes the contribution of all pillars of industry climate action, and the central role that sustainable aviation fuels will play in the sector's decarbonization. The rate of decarbonization that is identified as likely by the ICAO LTAG process, even in the more ambitious scenarios, should clearly recognize the uncertainties around technologies, fuels and operational improvements that have not yet been deployed or tested at scale in normal airline operations. In addition, ICAO should not prescribe any specific technology or set of technologies to ensure that the industry is allowed the flexibility to pursue emissions reductions through the most cost-effective and efficient means available.

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