



WORKING PAPER

**SEVENTH WORLDWIDE AIR TRANSPORT CONFERENCE
(ATCONF/7)**

Montréal, HQ, 16 to 20 November 2026

**Agenda Item 4: Emerging technologies, new business models and other associated aspects
4.2: Support and economic opportunities of access to aviation cleaner energies**

**RETHINKING SAF POLICY: UNLOCKING AVIATION CLEANER
ENERGIES THROUGH SYSTEMS TRANSFORMATION AND POLICY
SEQUENCING**

(Presented by the International Air Transport Association (IATA))

EXECUTIVE SUMMARY

This paper discusses the importance of a broader energy systems transformation to scale up the production of SAF, LCAF, and other cleaner energies. It highlights the need for coordinated and well-sequenced policy frameworks to mobilize investment, accelerate market development, and avoid unintended consequences. The paper invites States and ICAO to strengthen international cooperation and alignment to support an effective, efficient, and equitable aviation energy transition.

Action: The conference is invited to:

- a) recognize the importance of a systems approach and well-sequenced policy frameworks to accelerate the scale-up of SAF, LCAF, and other aviation cleaner energies;
- b) encourage States, in collaboration with ICAO, to step up efforts to create the enabling conditions for scaling up production globally, including through harmonized policies that mobilize investment, reduce risks, and avoid unintended market distortions;
- c) invite ICAO to continue working closely with IATA and other industry stakeholders through an ongoing multilateral process to support the development of coordinated and effective policy frameworks that ensure an efficient, equitable, and globally harmonized aviation energy transition; and
- d) invite ICAO to continue its work to develop a global, transparent, liquid, and competitive SAF market, with an emphasis on the need for harmonized sustainability and eligibility criteria and certification requirements, and to continue to explore purchase-based accounting approaches for CORSIA Eligible Fuels to accelerate the production, deployment, and uptake of SAF, LCAF, and other cleaner aviation energy.

<i>Strategic Goal:</i>	This working paper relates to Strategic Goals: <i>The Economic Development of Air Transport Assures the Delivery of Economic Prosperity and Societal Well-Being for All and Aviation is Environmentally Sustainable.</i>
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<i>Financial implications:</i>	
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¹ English, Arabic, Chinese, French, Russian and Spanish versions provided by IATA.

<i>References:</i>	Doc 10227, <i>Assembly Resolutions in Force (As of 3 October 2025)</i> Assembly Resolution A42-21
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1. INTRODUCTION

1.1 At the 77th Annual General Meeting in 2021, IATA's airline members committed to achieving net-zero carbon emissions by 2050, relying on a four-pronged strategy to abate CO₂ emissions: SAF, the development and deployment of new aircraft technologies, operational improvements, and market-based measures such as offsetting and carbon capture. With the adoption of the Long-Term Aspirational Goal (LTAG) by ICAO, governments now share this objective, under which approximately 21 gigatons of CO₂ from international aviation will need to be mitigated by 2050.

1.2 SAF has the greatest potential to reduce CO₂ emissions from aviation, and IATA's Net Zero Roadmaps estimate it will contribute to around 65% of the decarbonization of the global air transport industry by 2050². Achieving this will require over 500 million tonnes (Mt) of SAF annually by 2050. However, global SAF production remains limited, increasing from 1 Mt in 2024 to 1.9 Mt in 2025 and an estimated 2.4 Mt in 2026, equivalent to only 0.8% of global jet fuel use³. This highlights both a considerable supply gap and a significant opportunity to mobilize investment across the aviation energy value chain.

1.3 Achieving net zero by 2050 will require SAF production to expand by more than 200-fold within a relatively short timeframe. While ambitious, reaching needed production levels remains feasible from a feedstock availability and technical standpoint⁴. However, achieving this will critically depend on establishing robust, predictable, and well-sequenced policy frameworks that can mobilize large-scale investment and enable private-sector participation. On top of this, the adoption of a systems approach to a sequenced policy design will be essential to enable an effective, efficient, and equitable transition, particularly for developing countries, and to ensure broad and fair access to aviation cleaner energies.

2. THE IMPORTANCE OF A SYSTEM TRANSFORMATION TO BOOST PRODUCTION OF SAF, LCAF AND OTHER AVIATION CLEANER ENERGIES

2.1 Government policy plays an instrumental role in the deployment of SAF, LCAF, and other aviation cleaner energies. Policies should be targeted to create and accelerate the development of the requisite new markets, including upstream supply chains, to ensure they can perform their necessary functions effectively.

2.2 The world is engaged in the necessary but complex endeavor to decouple the global economy from its current fossil-based energy supply and provide alternative, renewable energy sources. This is a mammoth task as over 80% of global energy consumption is of fossil origin, illustrating how deeply embedded this form of energy is in human activity. The energy system enables technologies, infrastructures, markets, and institutions, and greases the cogs of production, transport, trade, and development - and these all evolve together. Their interlinkages create feedback loops that make simple, linear solutions fail.

² [IATA - Fly Net Zero](#)

³ IATA AGM 2026 presentation on SAF & Net Zero updates, accessible [here](#).

⁴ IATA & Worley Consulting, Global Feedstock Assessment for SAF Production, September 2026, accessible [here](#).

2.3 Within this broader context, as outlined in IATA's publication, *The Energy Transition: System Transformation*⁵ (available as IP/67), SAF production depends on feedstocks, renewable electricity, hydrogen, carbon capture, transport infrastructure, financing, and certification systems that are shared with other sectors of the economy. Aviation, therefore, cannot decarbonize in isolation. Rather, scaling SAF, LCAF, and other aviation cleaner energies requires coordinated action across energy, agriculture, industry, finance, trade and more, reinforcing the need for system transformation.

2.4 For airlines, this means the debate must extend beyond Civil Aviation Authorities and Transport Ministries to include Energy, Environment, Agriculture, Finance, Trade, Defense, and Economic Development authorities as part of a whole-of-government strategic priority. The rewards are potentially unprecedented. Governments can expand their countries' agriculture, improve soil health, preserve nature, bolster local communities, build energy security and independence, lift productivity, and produce sustainable growth across the entire economy, improving livelihoods for all. Any efforts that are directed at an individual industry can seem hard to justify politically, in addition to proving futile. Placed firmly in the context of a system transformation, they become necessary, separately and together.

3. NASCENT MARKETS SUCCEED WHEN POLICY TOOLS ARE SEQUENCED AND INTEGRATED

3.1 New energy markets typically evolve through stages of market creation, scale-up, and maturation, requiring a portfolio of supportive policy instruments at different points in their development. Optimal policymaking, therefore, must consider not only which tools to use but when to use them. The transition requires a sequenced approach that builds supply, transfers risk, develops infrastructure, and ultimately enables demand.

3.2 It must be acknowledged that the significant direct subsidies in favor of corporates in the fossil energy sector skew the investment case in favor of these, inducing a structural disadvantage to any renewable energy projects. This policy bias should be lifted and rather redirected to renewable energies.

3.3 Mandates should be viewed as one of the elements of a broader policy framework rather than a starting point. While mandates can be effective in mature markets with established supply and infrastructure, their premature introduction may increase costs, constrain supply, and create market distortions. Before mandates are considered, production capacity, distribution systems, and supporting infrastructure should be sufficiently developed.

3.4 Markets fail when policy tools are used in isolation and at the wrong time. They succeed when tools are sequenced and integrated, addressing bottlenecks in order of what they enable, and with keen attention paid to the wider energy system and ripple effects. A sequenced approach to the policies that can be used in market formation, aiming at system transformation, could be articulated as follows:

1. Remove, reduce, and redirect direct corporate subsidies in favor of fossil energies to renewables;
2. Promote and enable co-processing and LCAF;
3. Conduct public procurement for public consumption;
4. Ensure open access to airport infrastructure;
5. Provide capital support such as tax credits, grants, loan guarantees, concessional finance;
6. Accelerate new technologies and production pathways;
7. Develop, harmonize, and simplify certification, standards, and related processes;

⁵ IATA, *The Energy Transition*, March 2026, accessible [here](#).

8. Introduce a book-and-claim system;
9. Stabilize revenue: contracts for difference, production tax credits;
10. Transfer risk: create a global SAF risk-transfer vehicle;
11. Invest in infrastructure: pipelines, storage;
12. Consider mandates and carbon pricing; and
13. Avoid policy volatility at all times.

4. AVOIDING UNINTENDED CONSEQUENCES IN SAF POLICY DESIGN

4.1 Current policy measures remain insufficient to deliver the scale of aviation's SAF production required for air transport's energy transition, evidenced by the low production volume. Additional action is needed without delay. At the same time, States should address and avoid unintended consequences arising from the premature introduction of mandates. IATA and its members remain committed to working with governments to identify and resolve such issues and to draw lessons from existing policy experiences.

4.2 Experience with SAF mandates in the European Union and the United Kingdom indicates that fuel suppliers are passing the costs of compliance, including the financial risks associated with non-compliance, through to airlines via additional charges on fossil jet fuel purchases. While the mandates apply to fuel suppliers, they provide little incentive for suppliers to absorb these costs, leaving airlines to bear them. In this process, airlines are also deprived of their right to self-determination in their fuel procurement, be it fossil jet fuel or SAF. The outcome is higher costs for airlines, uncertain CO₂ emission reductions, and limited ability for airlines to claim these "SAF purchases" against their regulatory obligations. Based on an IATA survey, fuel surcharges average around USD 54 per tonne of jet fuel, compared with an estimated SAF market premium of USD 22 per tonne.⁶ Across the EU, this is estimated to have increased airline costs by around USD 1.3 billion in 2025, funds that could otherwise have supported the purchase of an additional 1.2 Mt of SAF, equivalent to approximately 2.7 Mt of annual CO₂ emissions reductions. Similar pricing behavior under the UK SAF mandate could mean forgoing a further 0.8 Mt of CO₂ emissions reductions.⁷

4.3 A core argument made in support of mandates is the demand signal they give for SAF production. The success of this has so far proven questionable. The EU and UK mandates contain clear signals for e-SAF production through their sub-mandates, while the UK also includes a "HEFA cap," signalling the need for advanced SAF from alternative feedstocks. These signals are well-defined and legislated but have failed to date to support the successful construction of e-SAF or non-HEFA SAF facilities anywhere near the required magnitude. The lack of supply will trigger penalties and result in significant additional costs that will eventually be passed on to the airlines. With the airline industry's projected 2% net profit margin in 2026, this risks undermining the entire industry as well as its decarbonization goals.

4.4 These experiences highlight the importance of designing SAF policies that follow a sequenced approach while being competition-neutral, non-duplicative, and aligned across jurisdictions. Given the inherently international nature of air transport, fragmented or inconsistent regulatory frameworks can increase compliance costs, create administrative burdens, distort competition, and reduce the cost-effectiveness of emissions reductions. Building on the global framework established through ICAO, greater policy coherence can help accelerate SAF deployment while preserving connectivity, affordability, and the efficiency of the international air transport system.

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⁶ S&P Global Commodity Insights

⁷ IATA chart of the week, Excessive SAF Fees in the EU: A lost opportunity to abate 2.7 million tonnes of CO₂, accessible [here](#).