Net-zero transition: multiple levers in different combinations

Emissions reduction potential by mitigation levers in 2050 compared to baseline levels

- IATA and partners published the first comprehensive review that compares 14 leading net zero CO₂ transition roadmaps for aviation. The report aims to provide a “one-stop shop” for airlines, policymakers, and all aviation stakeholders to better understand the key similarities and differences between the various roadmaps, in terms of their scope, key assumptions, modeled aviation energy demand, respective CO₂ emissions, and the emissions reduction potential of each mitigation lever.

- The report found a broad consensus on the transition measures that are available to the aviation sector in its transition to net zero by 2050. All these mitigation levers are needed, and they can be used in different combinations. Nonetheless, the role of particular levers will be more or less important depending on the vision of a given roadmap regarding how decarbonization technologies and solutions may evolve.

- While the emissions reduction potential of each mitigation lever varies across the roadmaps, all roadmaps expect the greatest amount of CO₂ emissions reduction from Sustainable Aviation Fuel (SAF) in 2050, ranging from 24%-70% with a median value of 53%. Hence, it is a clear message to policymakers that strong and urgent policy support is needed to increase SAF production. Without that, no version of the roadmaps will get the aviation industry to net zero CO₂ emissions by 2050.

Source: IATA Sustainability and Economics, new report “Aviation Net-Zero CO₂ Transition Pathways Comparative Review”.

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