

Decarbonizing Air Travel

Background: GBTA research on the U.S. economic impact of business travel shows in 2022 there were a total of 429.9 million business trips taken within the U.S. Nearly 35% of business trips involve air travel – second only to personal vehicles – meaning business travelers rely heavily on air travel.¹

As fighting climate change has become a global priority, businesses are increasingly pressured to shrink their carbon footprint. According to the U.S. EPA,² commercial aviation accounts for roughly 9% of U.S. greenhouse gas (GHG) emissions – nearly all of which come from the combustion of fossil jet fuel. Because the technology does not exist to electrify large aircraft or utilize other fuels like hydrogen in the near- to medium-term, the aviation sector is widely regarded as one of the most difficult to decarbonize. To further this, research conducted by GBTA shows that over 72% of travel buyers reported to have been asked by their leadership to decarbonize corporate air travel³, and that 54% of companies surveyed have emissions reduction targets that include business travel⁴.

To aid in the decarbonization of air travel, the industry is working on a basket of measures, including the use of sustainable aviation fuels (SAF). SAF is a drop-in, low-carbon synthetic jet fuel derived from sustainable feedstocks, including cellulosic biomass, wastes and residues, waste steel mill gases, and captured CO₂.

It is compatible with existing aircraft and infrastructure and can currently be blended at 50% with conventional jet fuels. It is also widely considered to hold the greatest potential for reducing GHG emissions from aviation. SAF reduces lifecycle GHG emissions by up to 80% compared to conventional jet fuel. Coupled with carbon capture and other practices, emissions can be negative.

1 billion dry tons of biomass can be collected sustainably each year in the U.S., which is enough to produce 50-60 billion gallons of low-carbon fuels, fuel the entire U.S. aviation industry, and remove our reliance on foreign partners.⁵

Issue: For a variety of reasons, including the size of the jet fuel market vs. the on-road fuels market, and relative industry maturity, SAF is not yet commercially available at scale and remains considerably more expensive than conventional jet fuel. To launch a robust industry that the U.S. can lead, government incentives are required. In 2022, Congress passed the Inflation Reduction Act that included a dedicated tax credit for SAF through 2024 which then transitions to a ‘Clean Fuel Production Credit’ for the years 2025-2027. However, the scale of investment needed is colossal. Industry experts predict that \$175 billion

¹ GBTA U.S. Business Travel Economic Impact Report 2024

² <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions>

³ GBTA Research April 2021

⁴ GBTA State of Climate Action, June 2023: <https://gbtafoundation.org/publications/2023-climate-action-report/>

⁵ SAF Coalition: SAF benefits are far reaching document

in annual investment is needed to scale SAF if we are to reach Net Zero by 2050.⁶ But more Congressional action is needed to spur the production of SAF.

Action: Both chambers have introduced the Farm to Fly Act. The Farm to Fly Act would advance Sustainable Aviation Fuels (SAF) within the U.S. Department of Agriculture (USDA) to foster the capacity of alternative fuels to expand fuel resources for the aviation sector, bolster rural development and create new markets for America's farmers.

Findings:

- Sustainable Aviation Fuels will expand domestic energy resources by accelerating the availability of a commercially viable of a sustainable aviation biofuel industry in the United States.
- Sustainable Aviation Fuels provide a critical opportunity to support America's farmers and the larger agricultural sector in its partnership with the aviation sector to support rural economic development.
- Sustainable Aviation Fuels will increase domestic energy security, create new markets for America's farmers while providing a new energy resource for the aviation sector.

Specifically, the Farm to Fly Act would:

- 1) Clarify eligibility for Sustainable Aviation Fuels within current U.S. Department of Agriculture Bio-Energy Programs expanding markets for American agricultural crops through aviation bioenergy.
- 2) Provide for greater collaboration for aviation biofuels throughout U.S. Department of Agriculture agency mission areas, increasing private sector partnerships; and
- 3) Affirm a common definition of SAF for USDA purposes, as widely supported by industry and congressional leaders to enable U.S. crops to most effectively contribute to aviation renewable fuels.

ACTION: Cosponsor H.R.6271 and S.3637 - Farm to Fly Act of 2023

Both Chambers: Support current language in House of Representative's Farm Bill that affirms SAF as an advanced biofuel and providing for greater USDA collaboration regarding SAF underscore the significant role of SAF.

⁶ <https://missionpossiblepartnership.org/wp-content/uploads/2023/01/Making-Net-Zero-Aviation-possible.pdf>