Sustainable Aviation Fuel Act

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BACKGROUND

The aviation sector accounts for 2.6 percent of total U.S. greenhouse gas (GHG) emissions, and 9 percent of emissions by the U.S. transportation sector. While decarbonization of surface transportation modes is focused heavily on electrification and fuel cell technology, the development of such technology in the aviation industry is just beginning. So, in the near term, the aviation sector will continue to be reliant on liquid fuels. Fortunately, there is a proven technology on the market today that can significantly reduce aviation emissions: Sustainable Aviation Fuel.

What is Sustainable Aviation Fuel (SAF)?

SAF is a drop-in fuel, which means it is an interchangeable substitute for fossil jet fuel up to a certain blending percentage. It therefore functions the same as fossil jet fuel while also meeting certain sustainability criteria. For the purposes of the Sustainable Aviation Fuel Act, only SAF that achieves at least a 50% reduction in greenhouse gases compared to fossil jet fuel on a lifecycle basis will qualify for the various incentives in the bill. Multiple types of SAF have been certified by ASTM International as safe for use in airplanes up to certain maximum blending limits. Since 2011, more than 200,000 flights have flown with SAF in their fuel tanks.

What are the policy problems?

SAF is beginning to be produced both in the U.S. and internationally but not at a scale fast enough to achieve our long-term climate change goals. Additionally, the same feedstocks that are used to produce SAF are also used to produce renewable diesel (RD), which is primarily used in ground transportation and cannot be used for aviation. RD is marginally cheaper to produce than SAF and enjoys policy incentives that SAF does not, which means that producers are incentivized to make RD rather than SAF. This will have long-term consequences for the climate, because ground transportation has better options to decarbonize than aviation does, namely through electrification and fuel-cells, and waiting to build out sufficient SAF production infrastructure could hinder the aviation sector's ability to decarbonize at a quick enough pace.

SECTION-BY-SECTION

Section 1. Short Title

Section 2. National Goal

Establishes a national goal for the U.S. aviation sector to achieve a net 35% reduction in GHG emissions by 2035 and net zero emissions by 2050.

Section 3. Definitions

Section 4. Grant Program

Assist capital deployment to make it financially attractive to expand the number of facilities producing SAF and the necessary supporting infrastructure by creating a program under the Federal Aviation Administration to offer competitive grants and cost-sharing agreements to carry out projects in the U.S. to produce, transport, blend, or store SAF. Authorized at $1 billion over five years.

Section 5. Low Carbon Aviation Fuel Standard

Require EPA to establish an aviation-only LCFS that regulates aviation fuel producers and importers. These parties will have to comply with a carbon intensity benchmark that declines each year. Producers that make fuels below the benchmark (i.e. SAF producers) will generate credits that they can sell to producers that make

fuels above the benchmark (i.e. fossil fuel producers). EPA will set annual benchmarks to reach the targets of a 20% reduction in carbon intensity by 2030 and a 50% reduction by 2050. The carbon intensity of fuels regulated under the LCFS will be evaluated via life-cycle analysis, ensuring that the policy is feedstock neutral.

Section 6. Military Procurement
Require DOD to increase utilization of SAF, so that at least 10% of the aviation fuel purchased is U.S.-produced SAF beginning in Fiscal Year 2024, so long as the fuel is cost competitive with fossil jet fuel. Provides the Secretary of Defense a waiver for national security purposes, including the lack of available, qualifying fuel.

Section 7. Federal Aviation Administration Research
Require the FAA Center of Excellence for Alternative Jet Fuels and the Environment (ASCENT) to conduct additional research on ways to increase SAF fuel utilization in the aviation sector, the impact of aviation emissions on the climate crisis, and ways to eliminate aviation-related GHG emissions. Authorized at $175 million over five years.

Section 8. Department of Energy Research
Require the Department of Energy, in consultation with the Department of Agriculture, to research the use of cover crops in the production of SAF.

Section 9. Blender's Tax Credit
Establish a new Blender's Tax Credit for SAF of between $1.50/gal and $1.75/gal. SAF that reduces GHGs by 50% compared to fossil jet fuel would receive a $1.50/gal credit. SAF that reduces GHGs by 100% would receive a $1.75/gal credit. The credit would be adjusted on a sliding scale for GHG reductions between 50% and 100%. To prevent double dipping, SAF would no longer be eligible for the existing $1/gal Biodiesel Tax Credit.

Section 10. EPA Certification for Purposes of the Blender's Tax Credit
Require EPA to develop a certification process for determining GHG reductions, and thus the value of the Blender's Tax Credit. EPA could do so either through conducting the lifecycle analyses in-house or by certifying the analyses conducted by third-party organizations under the umbrella of the International Civil Aviation Organization, as part of its newly established rules around SAF.

Section 11. Investment Tax Credit
Expand the existing energy Investment Tax Credit to include SAF production facilities and related infrastructure. The credit would be a 30% credit through 2026; 24% in 2027; 18% in 2028; and 12% from 2029 to 2035, at which point it fully phases out. The credit would be clawed back if more than 20% of the fuel produced by the facility is a product other than SAF for up to five years after production begins.