



Sustainable Aviation Fuel: Paving the Way for a Greener Future in Aviation

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Sustainable Aviation Fuel

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As the global aviation industry strives to decarbonize, the demand for SAF is rapidly increasing.

Oil & Gas companies can capitalize on this opportunity by leveraging existing expertise and infrastructure while aligning with global sustainability trends, regulatory requirements, and ESG goals.

Sustainable Aviation Fuel (SAF) is a cleaner alternative to conventional fossil-based jet fuel. It is produced from sustainable feedstocks, such as waste oils (e.g., used cooking oil), agricultural residues, and non-food crops

SAF can reduce lifecycle carbon emissions by up to 80% compared to traditional jet fuel, depending on the feedstock used and production methods. SAF is considered a "drop-in" fuel, which can be blended with conventional jet fuel and used in existing aircraft engines without modifications

Aviation Industry and GHG Emissions

The aviation industry accounts for a significant share of global greenhouse gas emissions, driving airlines and regulators to seek greener alternatives.

SAF presents a crucial solution to this challenge, offering up to 80% fewer lifecycle emissions compared to conventional jet fuel.

Airlines are committed to ambitious carbon reduction targets, with key initiatives like the International Air Transport Association (IATA) aiming for net-zero emissions by 2050.¹



How can an O&G company venture into SAF?

An O&G company can leverage its infrastructure, technical expertise, and capital to enter the SAF production market by

An O&G company can collaborate with agricultural and waste management industries. O&G companies can collaborate with airlines, governments, and energy startups to co-invest in SAF production facilities and pilot programs.

Ensuring alignment with global aviation regulations for SAF (such as ASTM D7566) and sustainability certifications is key to successfully entering the market

Highlights

Every drop of SAF produced has been bought and used. In fact, SAF added \$756 million to a record high fuel bill in 2023.

At least 43 airlines have already committed to use some 16.25 billion liters (13Mt) of SAF in 2030, with more agreements being announced regularly.

SAF is central to achieving these goals, leading to an expected surge in SAF demand, which is projected to grow to 7-10 billion gallons annually by 2030.

Regulatory Environment

Many regions, including the US and the EU, are offering tax credits, grants, and subsidies for SAF production. UPG can benefit from such support, reducing the cost of entry and accelerating profitability

CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) - This global regulatory framework requires airlines to curb carbon emissions and encourages the use of SAF. Although it is still voluntary, airlines consider this to maintain an image that they are sustainable.²

Governments and international organizations are driving the shift toward cleaner aviation fuels through regulation and incentives.³

¹ <https://www.iata.org/en/pressroom/2023-releases/2023-12-06-02/>

² <https://www.iata.org/en/pressroom/2023-releases/2023-12-06-02/>

³ <https://www.4air.aero/whitepapers/saf-corsia#:~:text=%E2%80%9CPinciple%3A%20CORSIA%20eligible%20fuel%20should,conventional%20fossil%2Dbased%20Jet%20A>