

SAF by the Numbers

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RECENT MONTHS HAVE SEEN A SHARP UPTICK IN airline offtake agreements and production project announcements as the aviation industry recognizes that sustainable aviation fuels are the only near-term option to decarbonize a majority of commercial air transportation. Availability of sustainable aviation fuel (SAF) remains strictly limited, and costs remain high, even compared with the soaring price of fossil jet fuel, but global facility plans backed by long-term offtake contracts promise to add significant production capacity beginning around 2025. Some of the major plans and deals are listed here.

The interest in SAF has increased due to widening airline commitments to be carbon-neutral by 2050, and particularly by interim targets being set for the replacement of a meaningful percentage of the industry's jet fuel consumption with low-carbon SAF by 2030.

NORTH AMERICA			
Producer	Location	Quantity*	Start Date
Aemetis	California	90	2025
DG Fuels	Louisiana	151	2024
Fulcrum	Nevada	11	2022
	Indiana	33	2023
Gevo	South Dakota	45	2025
Gron Fuels	Louisiana	529	2024
Infinium	Texas	—	2025
LanzaJet	Georgia	120	2023
	Illinois	120	2025
Phillips 66	California	100	2024
Readifuels	Iowa	36	2025
Refuel Energy	Ontario	46	2025
SAF+	Quebec	10.6	2026
SGP BioEnergy	Pennsylvania	—	2023
SkyNRG	Pacific Northwest	30	2027
USA BioEnergy	Texas	34	2026
Velocys	Mississippi	25	2026
World Energy	California	340	2025

*Millions of U.S. gallons per year

In September 2021, the Biden administration and the U.S. aviation industry partnered on the SAF Grand Challenge to produce 3 billion gal. of SAF a year in the U.S. by 2030, up from 5 million gal. in 2020. Meeting in Washington from June 1-3 for the SAF Summit

LATIN AMERICA			
Producer	Location	Quantity*	Start Date
Brasil Biofuels	Brazil	132	2025-26
Omega Green	Paraguay	294	2025
SGP BioEnergy	Panama	860	2027

NORTH AMERICA			
Airline	Supplier	Quantity*	Duration/Start Date
Air Canada	Neste	—	—
	Aemetis	13	7 years/2025
Alaska	Gevo	—	5 years/2027
	SkyNRG	—	—
American	Aemetis	112	7 years/2025
	Gevo	—	5 years/2027
	Neste	9	3 years/2020
	Prometheus	10	—
Delta	Aemetis	250	10 years/2025
	Gevo	525	7 years/2026
	NWABF	—	2024
JetBlue	Aemetis	125	10 years/2025
	SG Preston	670	10 years/2023
NetJets	World Energy	4.5	3 years/2021
	WasteFuel	100	10 years/2025
Southwest	Phillips 66	—	2024
	Velocys	219	15 years/2026
United	Alder	1,500	20 years/2025
	Fulcrum	900	10 years/2022
	Neste	52.5	3 years/2022



EUROPE



RENEWABLE FUEL PRODUCTION



AIRLINE OFFTAKE AGREEMENTS



MIDDLE EAST



ASIA-PACIFIC

organized by the Commercial Aviation Alternative Fuels Initiative, leaders in aviation sustainability were encouraged by the progress but acknowledged the sheer scale of the SAF Grand Challenge. 🌱

ASIA-PACIFIC

Producer	Location	Quantity*	Start Date
WasteFuel	Philippines	32	2025

MIDDLE EAST

Airline	Supplier	Quantity*	Duration/Start Date
Ethiad	Tadweer	140	1 year/2025
Qatar	Aemetis	—	7 years/2024
	Gevo	—	5 years/2027

EUROPE

Producer	Location	Quantity*	Start Date
BP	Germany	—	2022
Enerkem	Netherlands	26	2025-26
FairFuel	Germany	0.115	2022
Fulcrum	UK	26	2026
Green Fuels	Denmark	16.5	2025
Reuze	France	—	2025
Neste	Finland	515	2023
Phillips 66	UK	45	2022
SCA/St1	Sweden	66	TBA
Shell	Netherlands	135	2024
Shell/LanzaJet	Sweden	16.5	2026-27
SkyNRG	Netherlands	33	2025
	TBA (FLITE)	10	2024
Swedish Biofuels	Sweden	130	2025
Synhelion	Germany, Spain	387	2030
Synkero	Netherlands	16.5	2027
TotalEnergies	France	56	2024
Velocys	UK	20	2027

*Millions of U.S. gallons per year

ASIA-PACIFIC

Airline	Supplier	Quantity*	Duration/Start Date
ANA	LanzaJet	—	—
	Neste	—	—
Cathay	Aemetis	—	7 years/2025
	Fulcrum	375	10 years/2022
JAL	Aemetis	90	7 years/2025
	Gevo	—	5 years/2027
Qantas	Aemetis	35	7 years/2025
	BP	30	3 years/2022

EUROPE

Airline	Supplier	Quantity*	Duration/Start Date
British Airways	Aemetis	—	7 years/2025
	Gevo	150	5 years/2027
	LanzaJet	—	2022
	Phillips 66	—	2022
	Velocys	—	10 years/2026
DHL Express	Neste	105	5 years/2022
	BP	105	5 years/2022
Finnair	Aemetis	17.5	7 years/2025
	Gevo	—	5 years/2027
IAG	Velocys	73	10 years/2026
IAG Cargo	Phillips 66	2.1	2022
Iberia	Aemetis	—	7 years/2024
KLM	SkyNRG	250	10 years/2027
Lufthansa	AtmosFair	1	5 years/2022
Ryanair	Neste	—	—
Swiss International	Synhelion	—	—
Virgin Atlantic	Neste	2.5	2022

MAP: KHONKANGRUA/GETTY IMAGES. RENEWABLE FUEL ICON: PHOTOAMSTER/ISTOCK. AIRLINE OFFTAKE ICON: MRJUB/GETTY IMAGES