

A photograph of an airplane wing and engine against a sunset sky. The wing is white and extends from the right side of the frame towards the center. The engine is also white and is positioned below the wing. The sky is a mix of blue, orange, and pink, with some clouds. The overall tone is blue.

Hydrogen Valley Ltd.

Future of Sustainable Bio and Aviation Fuels

July 2024

Forward Looking Statements

This presentation includes statements that are, or may be deemed, “forward-looking statements” under applicable securities laws. In some cases, these forward-looking statements can be identified by the use of forward-looking terminology, including the terms “believes,” “estimates,” “anticipates,” “expects,” “plans,” “intends,” “may,” “could,” “might,” “will,” “should,” “approximately,” “potential” or, in each case, the negative or other variations thereon or comparable terminology, although not all forward-looking statements contain these words.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events, competitive dynamics, regulatory and scientific developments and depend on the economic circumstances that may or may not occur in the future or may occur on longer or shorter timelines than anticipated. Although we believe that we have a reasonable basis for each forward-looking statement contained in this presentation; we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation.

In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this presentation, they may not be predictive of results or developments in future periods. Any forward-looking statements that we make in this presentation speak only as of the date of such statement, and we undertake no obligation to update such statements to reflect events or circumstances after the date of this presentation except as required by law.

Biofuels – A practical solution for climate crises

What are biofuels



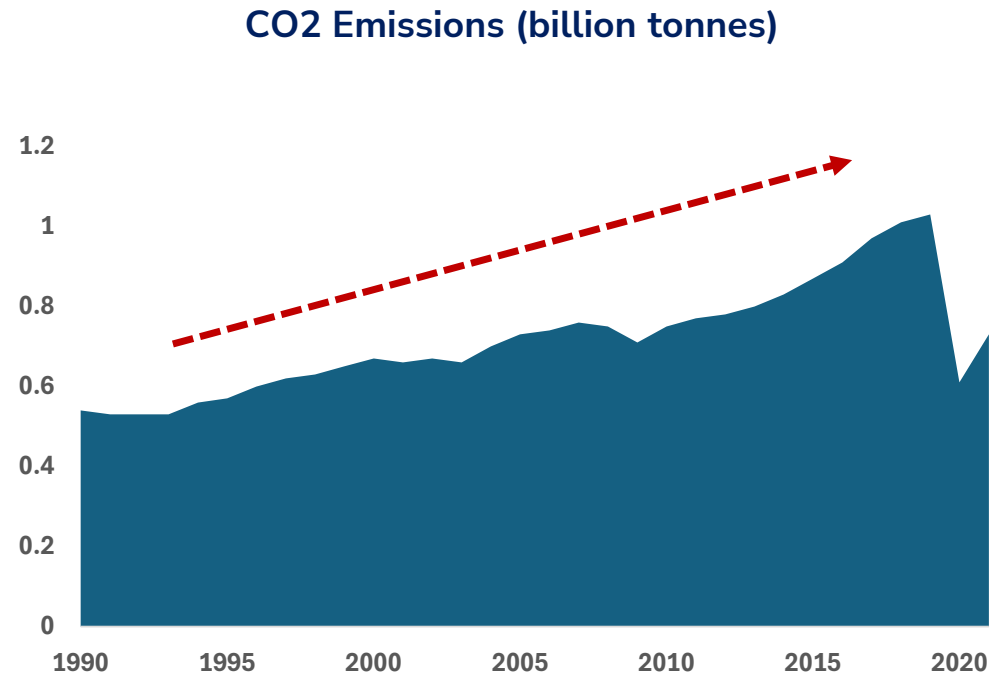
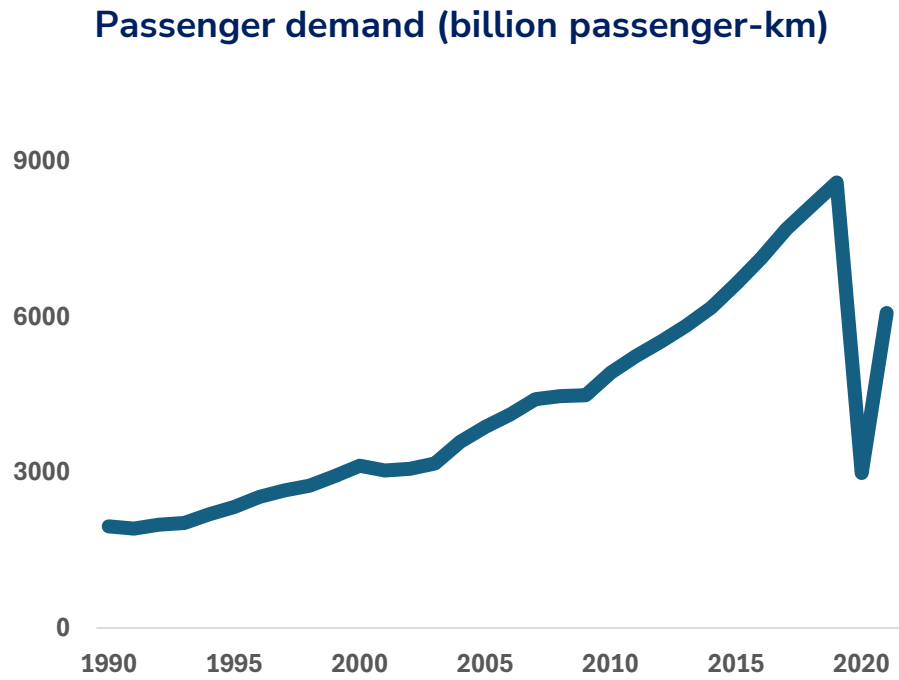
Sustainable Aviation Fuel (SAF) is a clean substitute for conventional jet fuel

Made from sustainable resources rather than fossil fuels, significantly reducing aviation's carbon footprint

- Biofuels – liquid fuels produced from biological sources such as plants, biowaste or algae offer an alternative to conventional fossil fuels like gasoline or jet fuel.
- Global biofuel production has increased dramatically over the last decades with significant offsets in carbon emissions.

- Production and use of biofuels is considered by the U.S. government to have fewer negative effects on the environment
- Pure ethanol and biodiesel are nontoxic and biodegradable, and if spilled, they break down into harmless substances
- When burned, biofuels generally produce fewer emissions of particulates, sulfur dioxide, and air toxics than their fossil-fuel derived counterpart










World's Demand for Aviation Fuel is Increasing



The world needs alternatives to traditional aviation fuel supply to lower emissions

Source: Bergero et al. (2023). Pathways to net-zero emissions from aviation.

Sustainable Aviation Fuels Demands is Increasing

	<ul style="list-style-type: none"> ○ Mandated all domestic flights to use green fuels (SAF and other synthetic) ○ Set a milestone for 2% by 2025 and gradually up to 63% by 2050
	<ul style="list-style-type: none"> ○ Inflation Reduction Act provides supply side subsidies ○ The SAF Credit offers producers \$1.25 to \$1.75 per gallon of SAF, depending on the lifecycle emissions
	<ul style="list-style-type: none"> ○ Mandated all domestic flights to use only green fuel by 2030 ○ Set a milestone for one domestic flight route to operate on green fuels by 2025
	<ul style="list-style-type: none"> ○ 0.5% SAF mandate since 2020 ○ Target of 30% by 2030
	<ul style="list-style-type: none"> ○ 0.5% SAF mandate from 2026 ○ 2% from 2030 (synthetic fuel)
	<ul style="list-style-type: none"> ○ Aims for at least 10% of jet fuel to be from sustainable sources by 2030 ○ Planning a SAF mandate of 2% in 2025, increasing to 10% in 2030 and 22% in 2040
	<ul style="list-style-type: none"> ○ 1% SAF mandate in effect since 2022 ○ Increased to 1.5% in 2024, will be 2% in 2025
	<ul style="list-style-type: none"> ○ Considering a 10% SAF mandate by 2030
	<ul style="list-style-type: none"> ○ Announced a 1% SAF mandate for all departing flights starting in 2026 ○ Aiming for 3-5% SAF use by 2030

Sources: <https://www.topsoe.com/sustainable-aviation-fuel/saf-study-appendix5>
<https://www.mycwt.com/news/blog/fueling-change-saf-takes-flight-in-business-travel-sustainability/>
<https://www.caas.gov.sg/docs/default-source/default-document-library/annex-2---saf-factsheet.pdf>

Airline Sustainable Aviation Fuel Commitments

Association of Asia Pacific Airlines (AAPA)

Striving for 5% SAF by 2030



10% SAF Commitment by 2030



Oneworld Alliance

10% SAF Commitment by 2030



Other

AIRFRANCE

10% by 2030

DELTA

10% by 2030,
35% by 2035,
95% by 2050

UNITED

100% Green by
2050

Numerous other airlines and agencies, including Department of Defense, utilize SAF to lower emissions

What is Sustainable Aviation Fuel (SAF)?

Sustainable aviation fuel (SAF) is the alternative to conventional fossil-fuel derived jet fuel

Sustainable

Lifecycle Emissions
Reductions

No Competition with
Food Production

No Deforestation

Alternative Feedstock

No Fossil Fuels

Waste oils, cooking oils,
municipal waste etc.

Fuel

Chemically almost
identical to jet fuel

SAF Sustainability

Compared to conventional jet fuel Sustainable Aviation Fuel results in lower CO2 emissions across its life cycle

