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LanzaJet

**Completing the World's First Alcohol- to-
Jet Plant in 2023**

Supported by World-class Investors and Funders



LanzaTech



- ✓ Funding commitments
- ✓ Commercial-scale projects commitments
- ✓ Offtake commitments
- ✓ Knowledge, support, and secondees commitments
- ✓ Feedstock supply flexibility commitments
- ✓ Innovative commitments

Existing Ethanol Supply + Developing Waste Supply chain = Foundation for Fully Scalable SAF industry

Leveraging & Transitioning Existing Ethanol Supply

1

- Existing low-CI ethanol production
- Cellulosic ethanol
- Waste-based ethanol

Building New Waste-Based Ethanol Supply

2

- Industrial / landfill off-gasses
- Agricultural waste and residues
- Municipal Solid Waste (MSW)
- Corn fiber cellulose / sugarcane bagasse
- Direct Air Capture (DAC) – $\text{CO}_2 + \text{H}_2$



Every waste resource, including CO₂, can be used in the integrated LanzaTech → LanzaJet Solution

An Abundance of Low Carbon Sources Exist

Illustrative Sources of Low-CI Ethanol

North America



- Energy crops
- Ethanol mill CO₂
- Ag waste
- Woody Waste
- Landfill biogas
- Refinery Offgas

UK & Europe



- Woody waste
- Industrial & refinery offgases
- Municipal solid waste (MSW)

Australia & NZ



- Waste from energy crops
- NZ: Woody waste

Canada



- Woody waste
- Refinery offgasses

India



- Energy crops
- Ag waste
- Industrial & refinery offgasses
- MSW

Asia & SE Asia



- Energy crops
- Ag waste
- Industrial & refinery offgasses
- MSW

Active Development Efforts

LanzaJet Leads the Industry with Fully Scalable Technology

Start with ethanol as a great building block

- Sustainably developed with low CI
- Enabling transition to 2G feedstock
- Flexible sources based on region of the world
- Significant volumes globally accessible and under development

Use our proven and leading ATJ technology

- Developed over 12 years with the US Dept of Energy
- Low capital cost
- High carbon conversion
- Highest product selectivity available for SAF
- ASTM approved pathway

Produce low-carbon, drop-in sustainable fuels

- Sustainable Aviation Fuel (SAF) and renewable diesel
- Commercial flights completed:
 - ANA
 - Virgin
- Commercial scale-up underway with 1B GPY (3M tons) production planned by 2030
- First biorefinery starting in 2023

LanzaJet Freedom Pines Fuels

Aviation Fuels

Feedstock	Conversion process
Low-Cl ethanol	Alcohol-to-Jet (ATJ)

10MGPY of renewable fuels: 90% SAF / 10% renewable diesel; located in Soperton, GA, USA. Numerous facilities in development globally. Goal of 1 billion gallons of US production by 2030.



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	CO₂ reductions	>70%
	Level of finance required	Varies
	Timeframe	EOY 2023 (first facility)
	Main challenges	Enabling Policy; meaningful CORSIA incentive

Thank You



ICAO

2023 STOCKTAKING