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Sustainable Aviation Fuel at an Inflection Point

Alex Menotti
VP, Corporate and Government Affairs

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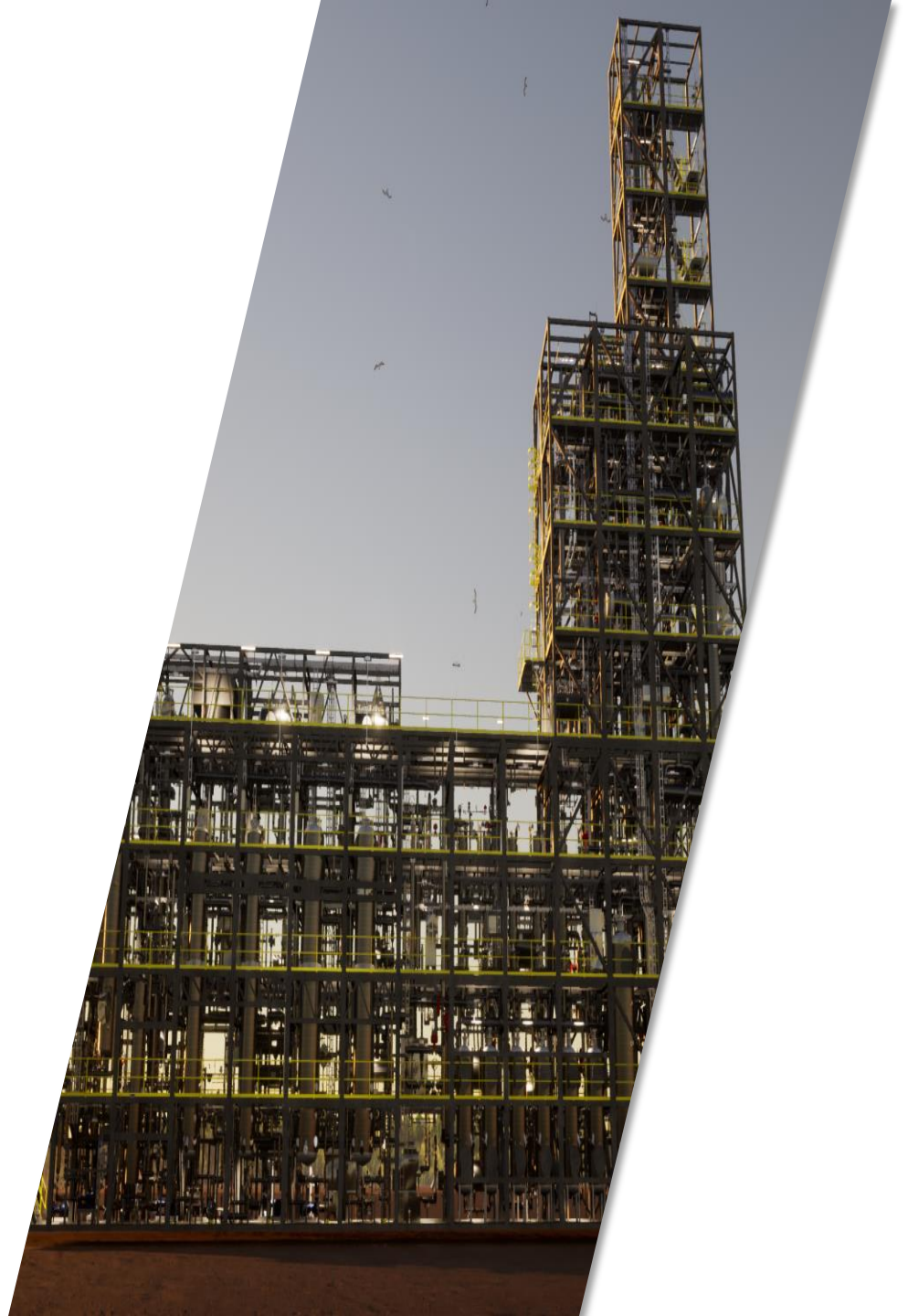
CAAFI Biennial General Meeting



LanzaJet is intentionally driving innovation and accelerated deployment

Financing	Feedstock	Technology	Fuel
Capital to **build company** and 1st commercial plant	**Widely available ethanol** globally & from waste	**Scaled up** with US DOE; ASTM pathway	>300M GPY by 2025 **Up to 90% SAF** + 10% RD
+	+	+	+
Capital for **series of commercial plants**	Great **building block** for hydrocarbons	Standard sizing & modular deployment: **time to market**	No sulfur, **high reduction in GHGs & soot particles;** less contrails

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The harsh realities of climate change are accelerating the focus on decarbonizing aviation

For Commercial Aviation…

	US	World
Jet Fuel Consumption (Pre-Covid)	**~21B+** Gallons / year	**~96B+** Gallons / year
Sustainable Aviation Fuel Production (2021)	**~5M** Gallons / year	**~30M** Gallons / year

+

- **New Goals**
- **New Mandates**
- **New Incentives**
- **New Scale in Technology & Production**

Catalyzing a New Global Market

Sources: World = IATA, US = Various including Regulatory Incentives

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US approach is an example for the role policy has in building this new industry

Duration is Critical to Spur Investment

Sustainable Aviation Fuel Grand Challenge

3B Gallons by 2030

- **Tax Credit**
  (10-yr SAF BTC → $1.25 - $1.75; originally $1.50 – $2.00)
- **Grants**
  (3 DOE Projects with LJ ATJ)
- **Loans**
- **Data and Modeling**
- **New Pathways**

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The SAF BTC helps to level the playing field

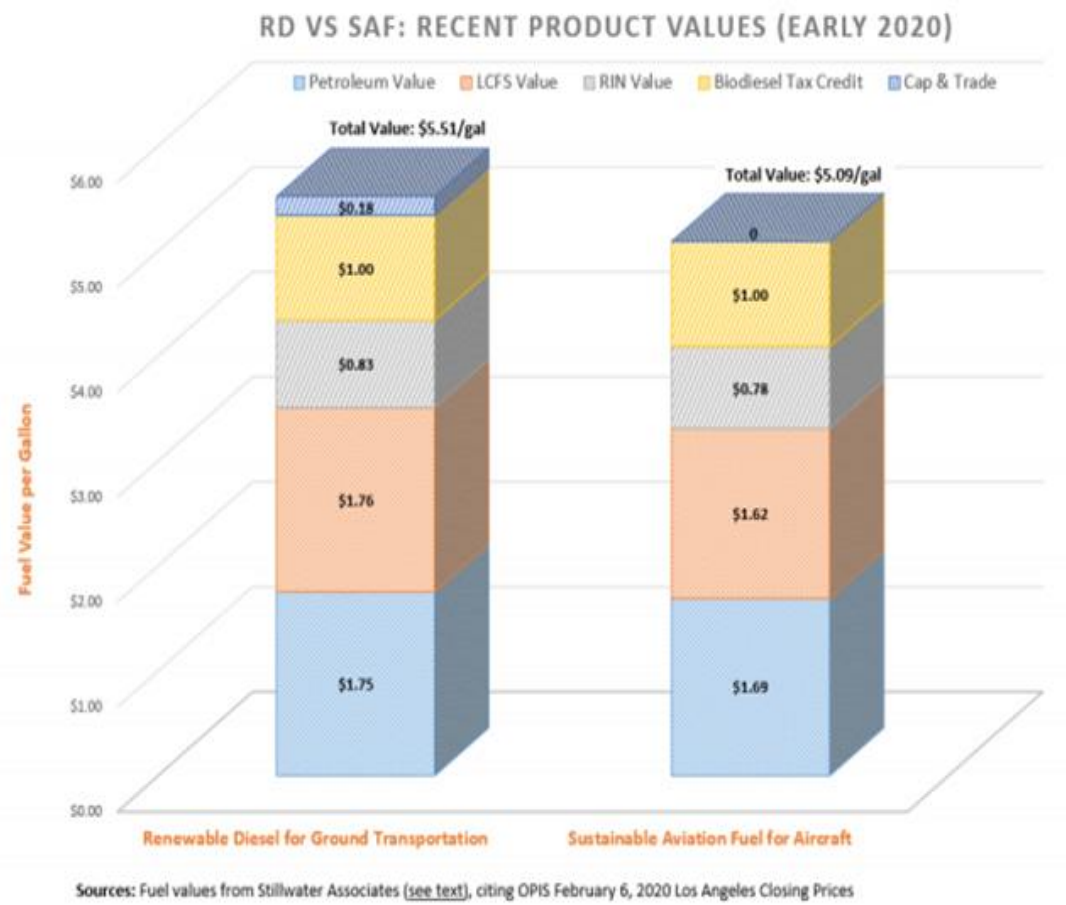

Figure 7. Recent Product Values for Renewable Diesel (left) vs SAF (right)

Sources: BAAQMD/Stillwater Associates

SAF Faces Policy and Structural Disincentives

- Spot Price of Jet vs. Diesel
- RFS
- LCFS
- Cap and Trade
- Lack of economies of scale
- Higher production and logistics costs

Table 1. Calculated Value of SAF and RD in California (October 11, 2021)*

Date	SAF	RD
Spot Price	$ 2.27	$ 2.47
Cap & Trade Cost Added to Petroleum Product	$ -	$ 0.28
LCFS Cost Added to Petroleum Product	$ -	$ 0.20
LCFS Credit Value	$ 1.03	$ 1.15
RINS Value	$ 2.37	$ 2.52
Blender's Tax Credit	$ 1.00	$ 1.00
Total SAF or RD Value	$ 6.67	$ 7.61

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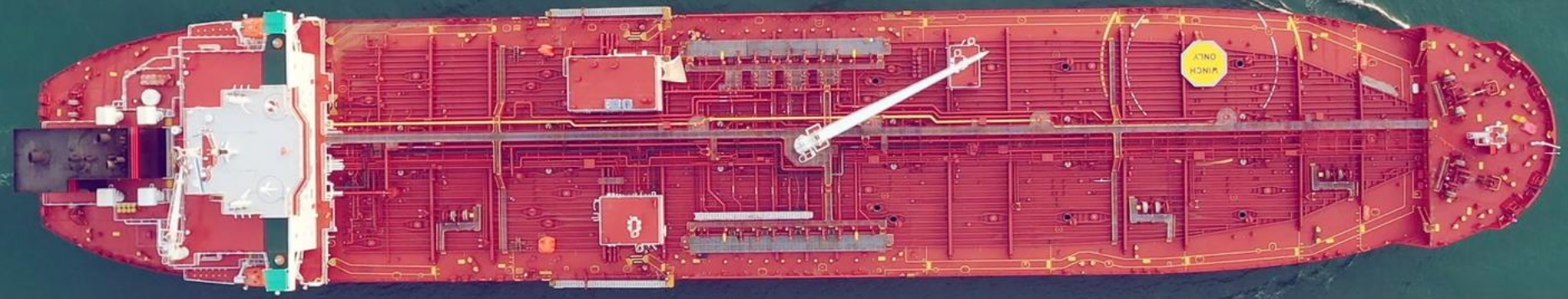
LanzaJet Aspiration



1 BILLION GALLONS

OF SAF IN THE US BY 2030

LanzaJet is supported by a world-class set of deeply committed investors and funders

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

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We leverage existing low-CI ethanol and use our proprietary technology and process to convert ethanol to drop-in SAF and RD

A

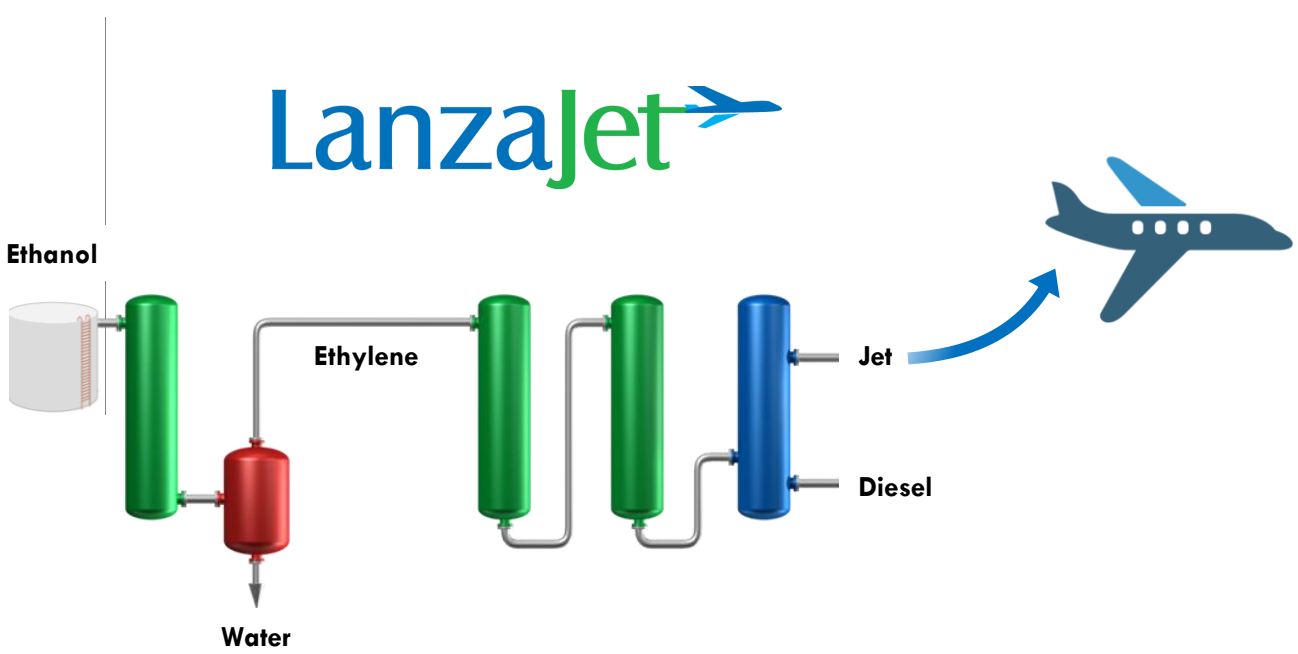
Leveraging & Transitioning Existing Ethanol Supply

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

B

Building New Waste-Based Ethanol Supply

- Industrial / landfill off-gasses
- Agricultural waste and residues
- Municipal Solid Waste (MSW)
- Corn fiber cellulose / sugarcane bagasse
- Direct Air Capture (DAC) – CO_2 + H_2



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Across the globe, various opportunities for low-CI ethanol

Illustrative Sources of Low-CI Ethanol

US

- Waste from energy crops
- Landfill biogas
- Ethanol mill offgasses

UK & Europe

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

Australia & NZ

- Waste from energy crops
- NZ: Woody waste

Canada

- Woody waste
- Refinery offgasses

South America

- Waste from energy crops
- Bagasse
- Ethanol mill offgasses

Asia & SE Asia

- Waste from energy crops
- Industrial & refinery offgasses
- MSW

Active Development Efforts

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Freedom Pines Fuels (FPF) is the foundation for a global deployment of our technology

Pilot Plant
Georgia, USA

2014 – 2017

LanzaJet Freedom Pines Fuels
Georgia, USA

2023

30M – 120M+ GPY Each

FLITE
Central Europe

Marquis SAF
Illinois

Vattenfall, SAS, Shell, and LanzaTech
Sweden

Suncor
North America

#1: Dragon
#2: Speedbird
#3: AtmosFUEL
United Kingdom

Shell
TBA

Mitsui
TBA

Others
Various

2024 – 2026

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Someday is now.