

The Future of Renewable Jet Fuel Is Bright

Advanced Biofuels Association June 2, 2021

Michael McAdams, President Paul Argyropoulos, Consultant

Who We Are



AltAir Fuels

BP

BSBIOS

Cargill

Castleton (CCI)

Diamond Green

Eco Engineers

ExxonMobil

Fulcrum

Gevo

Harvestone Group

Honeywell UOP

ICOF

logen

LanzaJet

LanzaTech

Love's Travel Stops

Louis Dreyfus Company

Murex

Musket

NEFI

Neste

Novita

Nuseed

Oberon Fuels

Owensboro Grain

Phillips 66

Pilot Flying J

RBF

Red Rock Biofuels

REG

Sappi

SCB

Shell

Specoil

Sprague Energy

SunGas Renewables

Targray

Texon

Trillium

Velocys

Victory Renewables

Virent

Vitol

Weaver

World Energy

Jet Fuel Demand



Aviation fuel demand in 2019 demonstrates pre-COVID levels:

- Global demand was 96 billion gallons
- U.S. demand was 27 billion gallons

The fastest growing fuel demand in the world is aviation fuel

Advocacy and education



- Working with existing coalition with CAAFI and A4A
- Many of our members are leaders in this space.
- Hill is very interested and have introduced several bills to move a aviation credit forward
- ABFA has supported this effort with the Biden Administration
- Communications efforts and outreach effort will highlight the jet sector for an effort to deliver minimum 50% carbon reduction going forward.

ABFA supports jet credit



- Our membership supports a separate jet credit.
- It is important to show specific interest in this sector as it is the most difficult to electrify and is increasing in demand with more global travel
- Use of existing refinery infrastructure is key to short term carbon reduction and significant volume
- Cost more to make aviation fuel justifying the credit.

Increasing Opportunities for Blending



- Under the Renewable Fuel Standard (RFS), EPA sets the volume levels obligated parties must blend into the transportation fuel supply annually (the "Renewable Volume Obligation, or RVO")
 - If volume is produced, EPA must reflect this volume in the RVO
 - This allows the free market to produce more volumes that are phased in and reflected in the program phase
 - These fuels must meet a minimum of a 50% carbon reduction to qualify as advanced biofuels under the RFS.
- To unlock greater volumes, we must increase access to feedstocks beyond the current mix to get to a 50% or greater blend rate of 50% or better GHG performing components in the aviation fuels mix



EPA Barriers to Jet Fuel Production

- Increasing feedstock availability and use under the RFS relieves volume limitations:
 - Finalize a 2016 rule permitting the use of non co-located "biointermediates" under the RFS program
 - Would enable feedstocks to be processed into intermediary feedstocks, then transported to other locations to be upgraded into jet fuel
 - Review programmatic flexibility for the use of compliant wood and municipal solid waste (MSW) feedstocks by providing similar aggregation methods allowed for first generation feedstocks
 - Would enable more use of approved wood and MSW feedstocks
- Jet fuel must be given equal treatment with first-generation fuel under the RFS:
 - Allow RIN generation to be calculated using a mass-balance approach for manufacturing and compliance of advanced and cellulosic renewable fuels

New Renewable Diesel Plants



Dickerson ND, Marathon	184 million/gallons/year	2020
Norco, LA, Diamond Green	675 m/g/year	2021
Wynwood, CVR	100m/g/year	2021
Bakersfield, CA, Renew fuels	230m/g/year	2022
Cheyenne, WY, Holly Frontier	90m/g/year	2022
NM, Holly Frontier	110m/g/year	2022
Paramount, CA, World Energy	330m/g/year	2023
Rodeo, CA. Phillips 66	680m/g/year	2023
Marinez, CA, Marathon	736m/g/year	2023
Giesmer, La, REG	340m/g/year	2023
Port Author, TX, Diamond G	400m/g/year	2024
Total:	3,875,000,000 gallons a year	

References, April 27,2021

U.S. Military Has Demonstrated Fuels

Advanced Biofuels Association

Great Green Fleet, 2012

