

# Forestry Waste to Renewable Diesel & Sustainable Aviation Fuel

CAAFI Virtual Symposium 2021  
Nick Andrews, CEO  
USA BioEnergy



**USABIOENERGY**  
Renewable Energy Solutions



**TEXAS**  
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# Developing a Series of Advanced Biorefineries

12 in a Four-State Region

- East Texas
- Louisiana
- Mississippi
- Southern Arkansas

6 Sustainable Aviation Fuel (SAF)  
6 Renewable Diesel (RD)



# Proven Technologies

Commercially Deployed

Bankable and Insurable

Technology set includes:

- Gasification
- Partial Oxidation
- Fisher-Tropsch Processing & Upgrading



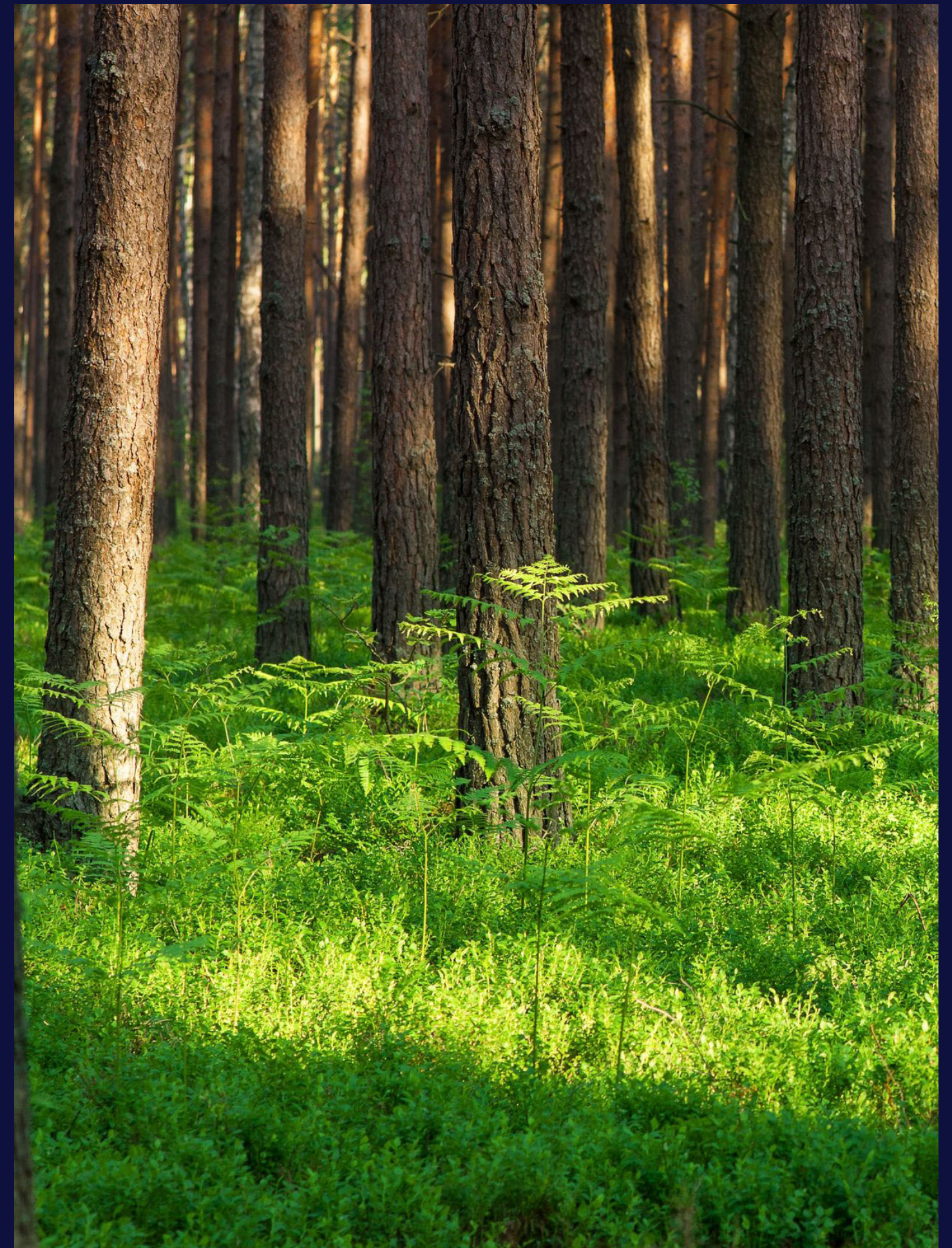
# Guaranteed Supply of Feedstock

RFS certified - 50 to 75 mile radius

Wood waste - forest residuals from normal  
forest maintenance activities

1st & 2nd commercial thinnings helps larger  
trees grow bigger

Reduced risk of forest fire



# CO<sub>2</sub> Sequestration

- Prominent NYSE public company
- Renewable power
- Carbon Capture and Sequestration “CCS”
- One of the lowest carbon intensity scores in the industry
- Purchase, own & operate carbon capture, and compression equipment
- Building pipeline to transport CO<sub>2</sub> to HUB for permanent sequestration





# Leading the Energy Transition

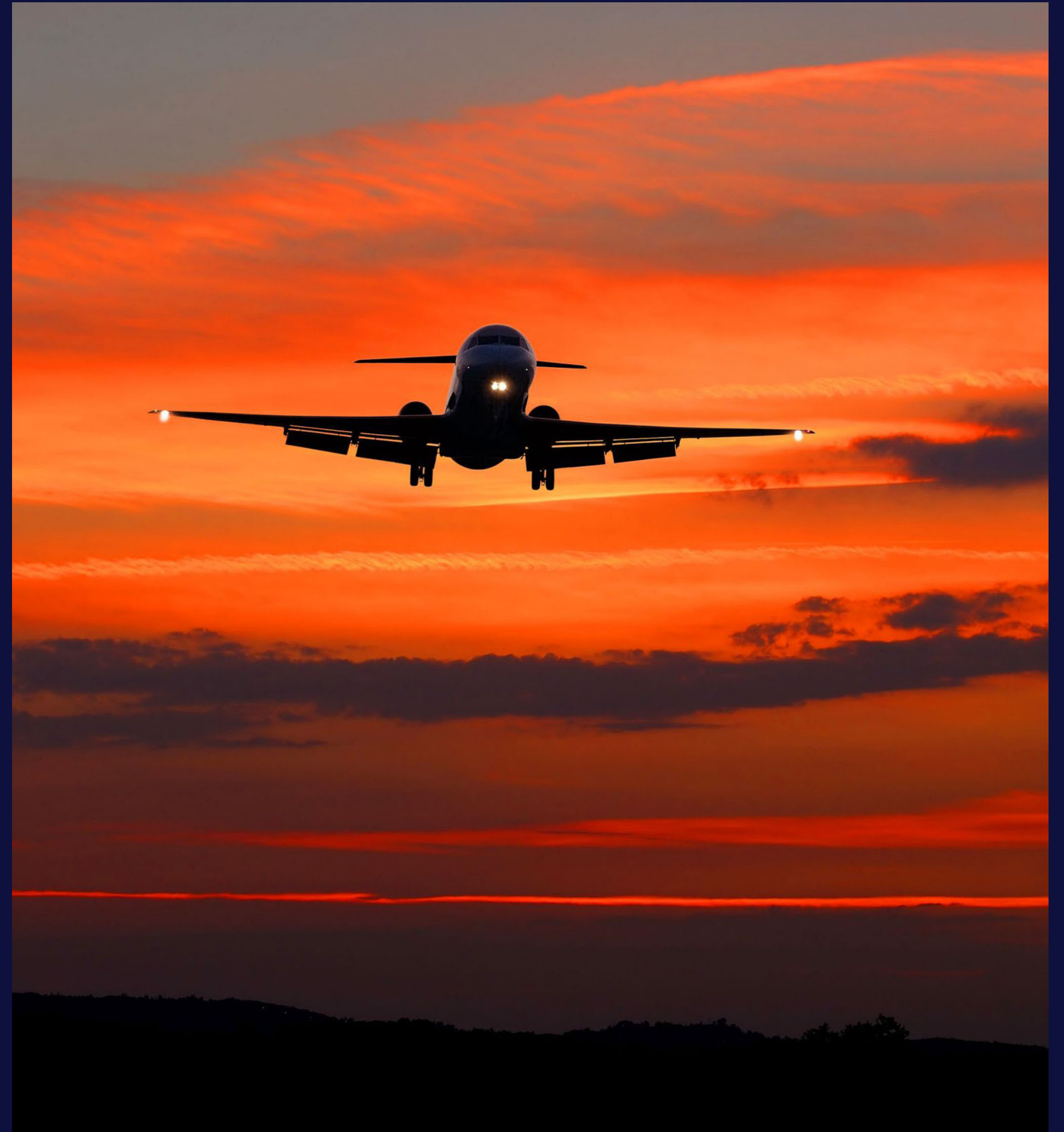


- Deliver over 100 million gallons of SAF into LAX annually
- Equals 2.5 million metric tons of CO<sub>2</sub>/year
- Reduce GHG emissions of 50 million metric tons of CO<sub>2</sub> over a twenty-year period



# Sustainable Skies Act makes SAF production feasible

- Potentially gain \$1.75 but lose \$1.00 Blender's Credit
- Recognizes increased cost to produce SAF vs RD
- Produces less SAF than RD
- Increased complexity in fuel logistics



# First Advanced Biorefinery in Bon Wier, Texas

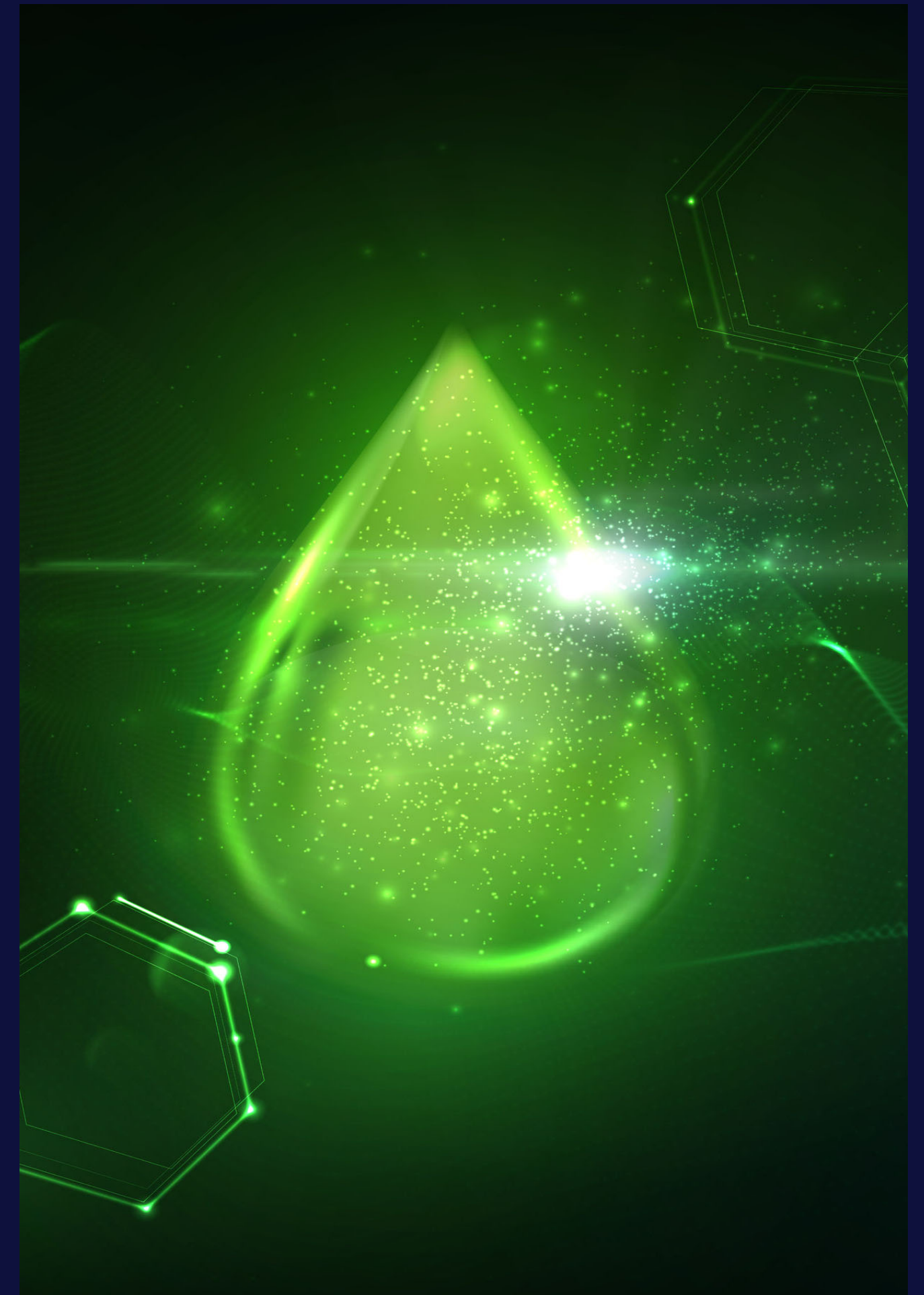
- Convert woody biomass into 33.0 million gallons/year of RD & naphtha
- Supply the market with drop-in, sustainable, renewable RD fuel
- Fuel is premium, ultra-low sulfur, direct replacement for fossil fuel
- Qualifies for highest levels of RINs and CA-LCFS credits
- Subject to final approval of Texas incentives





# Fuel Characteristics

- Convert wood waste into drop-in RD and/or SAF (+naphtha)
- Chemically identical to petroleum fuels
- Sold through existing infrastructure
- Lower contaminant levels
- Burns cleaner than petroleum derived fuels



# World Class Project Team

## Decades of Experience

- Capital Structure
- Project Development & Execution
- Technology Selection & Qualification
- Technology Integration & Plant Design
- Petrochemical Plant Operation
- Supply Chain Development
- Transportation Fuel Sales & Marketing



# Performance Guarantees

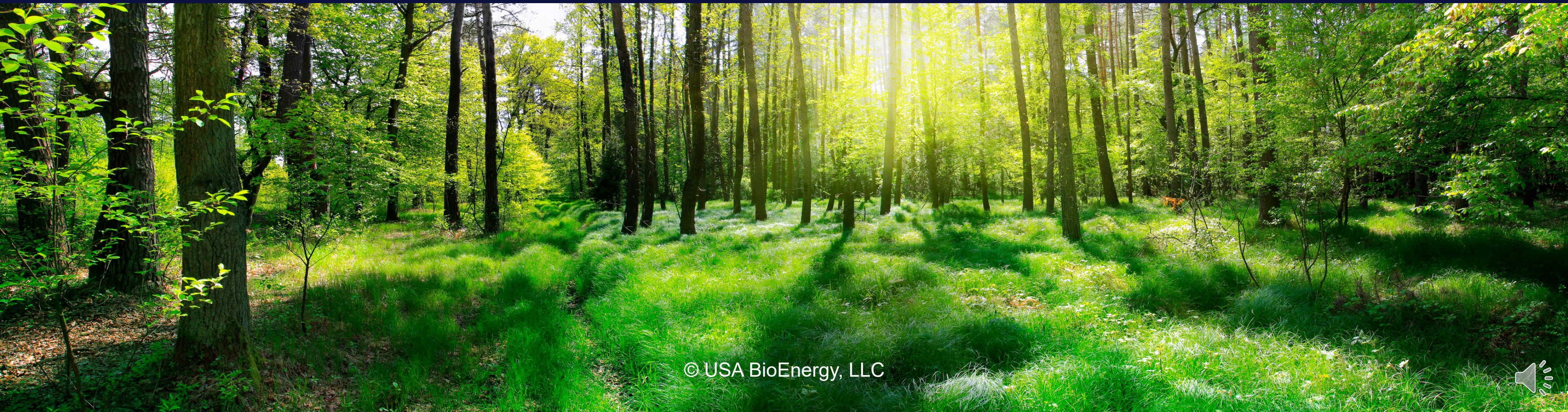
- Full EPC wrap
- Lump sum contract and turnkey solution
- Guaranteed maximum price contract
- Guarantee to build plant through mechanical completion and commissioning
- Performance guarantees from licensors and EPC supplemented by a suite of technology insurance policies



# Regulatory Risk Insurance & LCFS Hedging Insurance

Changes in regulatory environment for RINS and /or LCFS Credits

Sharp decline in price of LCFS Credits due to changes in economics of demand & supply



# Highly Confidential Letter & Proposal

Debt Financing using tax-exempt bonds  
from co-underwriters Citigroup and Stifel Nicolaus

Amortized over 22 years

Permanent Equity is currently being negotiated

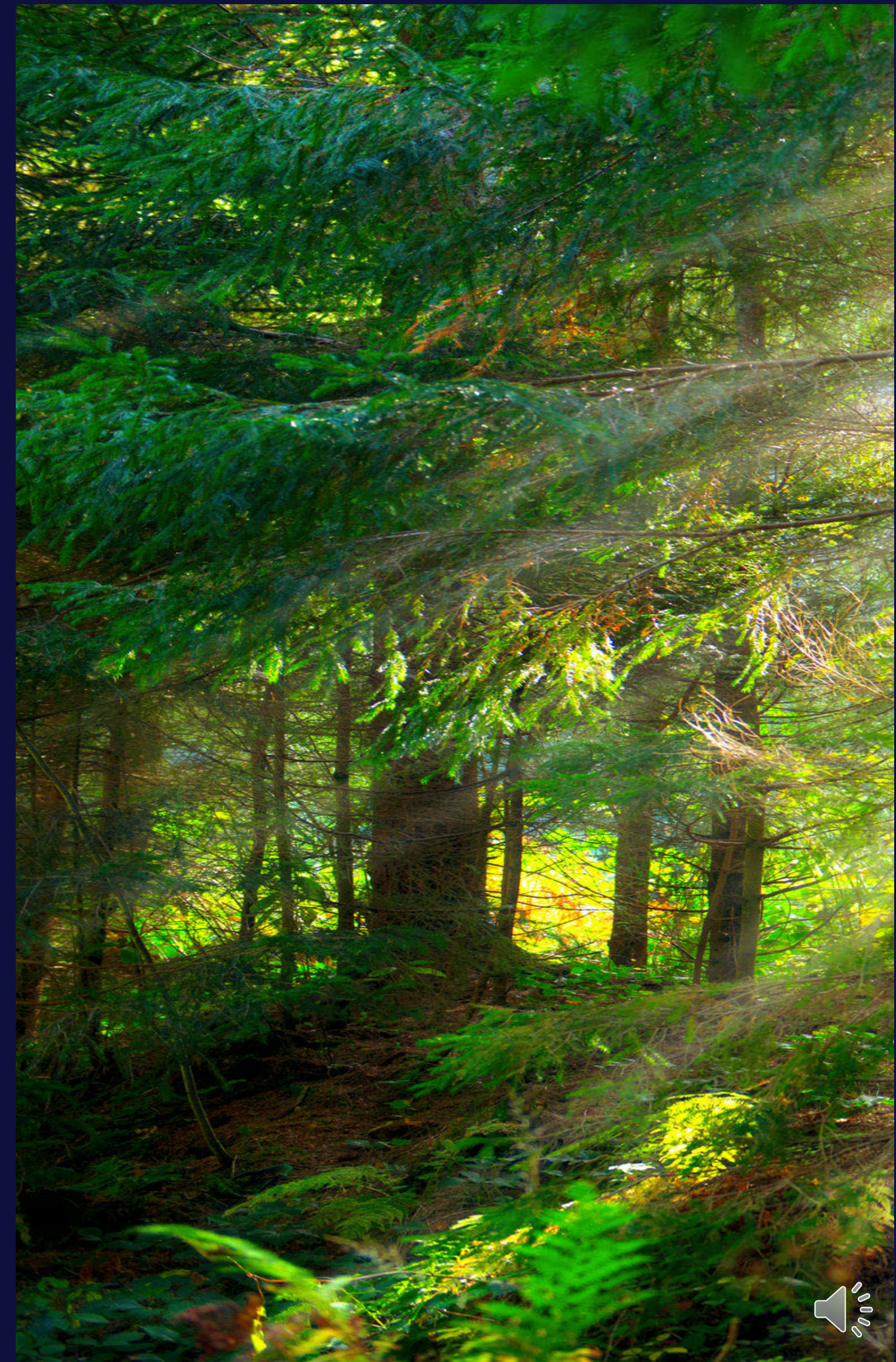


STIFEL



# Critical Elements in Place

- Product offtake agreement secured
- Technology set selected
- Integration and detailed engineering completed
- World-class owner's engineer
- EPC chosen
- Superior plant site
- Agreement to provide O & M





**Summer Announcement on Airline Partnership**

**First Biorefinery - Operation Date Q1 2025**



# Contact



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