ALDERFUELS

Bruno Miller Chief Commercial Officer

CAAFI Biennial General Meeting (CBGM) June 2022





We see a future of gathering energy instead of drilling for it

Global aviation energy demand projection million tons jet fuel

Air travel expected to double by 2050, with success of "SAF 1.0" creating a tipping point due to finite supply of waste fats, oils, and grease

New solutions are needed so lowcarbon fuels are *economical and accessible for everyone*



Bureau of Transportation Statistics; U.S. Energy Information Administration Outlook; Collins & McLarty (2020) Applied Energy, 265, 114787; Civil Aviation Organization CORSIA; McKinsey Global Energy Perspective (2021)



We aim to gather locally and produce locally

- Gather abundant biomass residues and energy crops
- Deploy low-capital, efficient technology to concentrate biomass energy





Energy potential for over **17 billion gallons of jet fuel** from U.S. forest residues & agricultural residues alone

Our solution for sustainable fuel is a load of rubbish

We see biomass as a relatively untapped global energy solution





Provide economies-of-scale savings by feedstock and technology working together



- Hub-and-spoke model to minimize biomass transportation costs
- Capital-efficient technology to produce energy-dense "green crude" oil at hub
- Ship "green crude" oil to existing refineries for processing into finished fuel

Backed by leaders in SAF technology and deployment

Strategic backing from United Ventures and Honeywell UOP

Joint development agreement with Alder for process development and engineering package

United providing largest SAF offtake agreement of 1.5 billion-gallons

ALDER UNITED Honeywell

Confidential & Proprietary Information @ Alder Energy LLC | 2022

Next-generation "green crude" oil

Alder proprietary technology upgrades fast pyrolysis oil into "green crude" with minimal inputs

Eliminates need for catalytic cracking to enable distillate fuels production for jet and diesel



Successfully scaling Alder will lead to positive global ESG outcomes





Sustainable fuels

Alder's Biocrude will be produced from feedstocks that are sustainably sourced and consider soil health, carbon stock, and conservation and will provide low-carbon alternatives to petroleum crudes used across industry today



Alder will activate socioeconomic development through public and private partnerships focused on building new industries for sustainable feedstock supply (e.g., closed-loop regenerative farming in Colombia)

Environmental

Alder will ensure local residents will be included in creating new industries and their livelihood will be positively impacted through access to new socioeconomic opportunities

ALDERFUELS

Decarbonize the Skies

Bruno Miller bmiller@alderfuels.com

