

## Rockwood, TN Production Facility

Cellulosic Renewable Diesel and Biochar

## **EXECUTIVE SUMMARY**

AGF Rockwood will utilize a proprietary process to produce second generation biofuels.

Feedstock: Waste Wood Slash, Pre-Commercial

Thinning, Sawmill Waste

Products: Cellulosic Renewable Diesel, Biochar

Fuel GHG Savings: 81%

Est Biochar CO2e Seq.: 3x

Location: Black Hollow Road, Rockwood, TN

## KOLMAR GROUP

Kolmar Americas, Inc. is the U.S. based <u>subsidiary</u> of Kolmar Group AG. Kolmar Group has a 25 year history of marketing, trading, manufacturing, consulting and project development with a product portfolio covering a wide range of petrochemicals, petroleum products, and renewable fuels.

#### Brief glance at Kolmar Group:

- Global Network of offices in 26 Countries
- In excess of \$1.5 billion in financing lines
- \$4.9 billion in revenue in 2021
- Well Established Logistics Network
  - Waterborne Shipping
  - Rail
  - Trucking
  - Storage







# KOLMAR: RENEWABLE FUELS MARKET INVOLVEMENT

Kolmar Americas is a leader in the liquid renewable fuels industry and was an early partner of the emerging biodiesel industry beginning in 2006, providing working capital and marketing services to many of the nation's largest biodiesel producers as the industry grew from domestic production of less than 100 million gallons in 2005 to a domestic peak of more than 1.8 billion gallons in 2018.

#### <u>History</u>

- 2015: Kolmar acquired a distressed biodiesel plant in New Haven, CT with nameplate capacity of 10 million gallons per year. Kolmar expanded the pre-treatment process to accommodate a wider variety of low-carbon 'waste' feedstocks, while increasing capacity to 40 million gallons per year. Kolmar continues to own/operate this plant which is currently the largest in the Northeast, and along the eastern seaboard of the United States.
- 2018: Kolmar acquired a second biodiesel asset in Port Arthur, TX. This plant is the only facility in the United States with an EPA pathway to produce biodiesel from palm fatty acid distillate.
- 2021: Kolmar acquired a cellulosic diesel facility in Rockwood, TN. AGF Rockwood will be the
  first commercial plant to produce renewable diesel capable of meeting the cellulosic RTFC
  mandate in the UK.
- 2021: Kolma<mark>r executed an exc</mark>lusive multi-year marketing agreement with Gevo, Inc. for 45 million gallons per year of Sustainable Aviation Fuel produced at their Net-Zero 2 Plant

## UNIQUE PRODUCT MIX

### **Combating Climate Change**

Use of fossil fuels has come under scrutiny over the past three decades due to their contribution to greenhouse gas (GHG) emissions, which have directly contributed to climate change. If left unchecked, climate change is expected to cause extreme weather events that are both disruptive and dangerous to global ecosystems.

In 2015, 196 countries signed the Paris Agreement, an international treaty aimed at combating climate change. Governments around the world are pushing to reduce GHG emissions by promoting new "green" energies which include electrification, hydrogen, and next generation biofuels.

While low carbon fuels are critical to the fight against climate change, they are not enough to stabilize climate to meet global climate objectives. Industries like Cement, Steel, and Electricity are fundamental to the growth and stability of global markets. Driving carbon emissions toward zero in these industries will take decades. Carbon capture and sequestration is necessary on a global scale to balance the needs of our society against the technologies available to Industry. Countries around the world are working to create markets and regulatory environments that support efforts that create carbon sinks. The European Commission is leading the way with their guidance on carbon. The Commission identifies carbon capture, use, and storage as fundamental tools to combat climate change.

Our technology at American GreenFuels Rockwood has the ability to simultaneously reduce GHG emissions in on-road fuel, while also sequestering carbon in Biochar.

## **FEEDSTOCK**

The primary feedstock for AGF Rockwood is waste wood slash, pre-commercial thinning, and sawmill waste. We are developing relationships with local industry participants to help develop this market for their waste. This will increase their netback and support the local economy.

All feedstock delivered to AGF Rockwood will comply with International Sustainability & Carbon Certification (ISCC) standards.

#### Benefits to Waste Wood Feedstock:

- Waste wood, when left to compost in the forest, generates greenhouse gases that contribute to global warming;
- Waste wood, when left to compost in the forest, creates a fire hazard;
- There is no food versus fuel debate with waste wood, like there is with other second generation biofuels; and,
- 4. This feedstock is abundant and widely available in virtually all regions within the United States.





## AGF Rockwood – Production Estimates

- Our first module is capable of producing 2,300 metric tons of biochar per year
- This unit is currently undergoing engineering and design improvements which will conclude in October
- We intend to build 18 modules at our facility in Rockwood, TN
  - Total estimated production: 41,400 MT/year
- Ramp Schedule: We intend to ramp our production to our target levels by end of year 2024

## AGF Rockwood – Biochar Qualities

Fixed Carbon: >93%

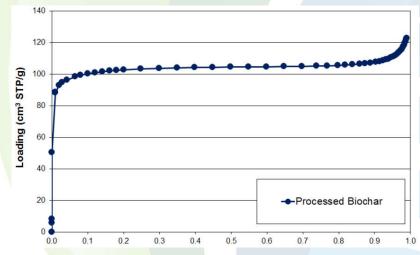
Total Ash: <3%

Moisture: <1.3%

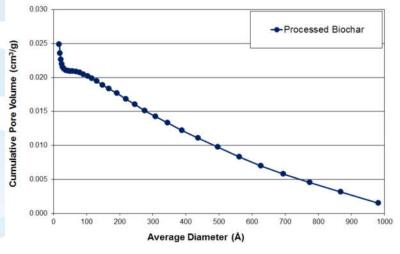
Hydrogen: <5%

Electrical Conductivity: 678





Pore Size and Distribution data consistently very high



## **BIOCHAR: PHYSICAL MARKET**

Biochar is the carbon-rich material produced during the pyrolysis process at AGF Rockwood. The analysis of biochar created at AGF Rockwood demonstrates a fixed carbon capacity of 90% or greater. This stable source of high density carbon material has many end-use applications.

#### Market Opportunities for Biochar

Agriculture: Addition of biochar to soil has been shown to increase crop yield

Filtration: Biochar can be used as a high-carbon filter media

Carbon Black: Biochar can be used as a replacement to fossil carbon

Graphene: Biochar is being tested as a high carbon feedstock for graphene

production

Concrete: Addition of biochar to concrete has been shown to increase

durability

Remediation: Biochar can be used to remove contaminants from soil

# BIOCHAR – ENVIRONMENTAL ATTRIBUTES

There are several burgeoning marketplaces for carbon dioxide removal credits (CORCs), both in the United States as well as in Europe. Typical production of biochar leads to a multiplier in units of CORCs to physical

production of biochar.

Market Value (per MT): EUR 100

CO2 credits per MT Biochar: 3

Markets: Carbon Future

Puro.Farth

Verra

CORCCHAR

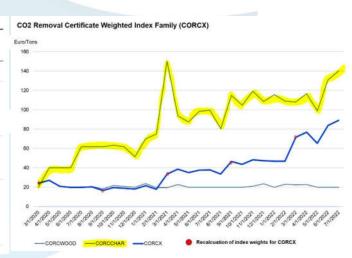
NASDAQ Index:

## Carbon Markets

The value of Carbon Sequestration is critical to the long-term viability of Renewable Projects like Rockwood. We are pleased to see that Carbon Markets continue to be supported by voluntary participants.

Strategically we are developing relationships with corporations who share our goals to sequester carbon. We are working toward long-term arrangements with strategic partners who are looking to fix the cost of their carbon related ESG goals. We intend to sell forward some portion of our carbon credits to these partners, but believe the market will continue to be supported far into the future. As a result, we will trade the balance of these credits in the spot markets as they continue to strengthen.

	July-2022	1-Month Change		6-Month Change		YTD Change	
	EUR	EUR	%	EUR	%	EUR	9/6
CORC Carbon Removal Price Index CORCX	89.16	5.39	6.44%	42.41	90.70%	42.41	90.70%
CORC Biochar Price Index CORCCHAR	140.16	9.34	7.14%	24.53	21.21%	24.53	21.21%
CORC Bio-based Construction Materials Price Index CORCWOOD	20.00	0.05	0.23%	-0.08	-0.40%	-0.08	-0.40%



## Contact Info

For questions about American GreenFuels Biochar or Carbon Sequestration Credits, please contact the following individuals:

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