



Executive Summary

Mission, Vision, & Value Proposition

Blue Biofuels Inc. is revolutionizing the biofuel industry. We have developed and patented technology to convert fully renewable, cellulosic, non-food feedstocks like grasses, agricultural wastes, and other plant material into biofuel, in a cost-leading, environmentally friendly, and low carbon footprint process. Our modular, easily scalable Cellulose-to-Sugar (CTS) technology allows rapid conversion of almost any biomass into soluble sugars for further processing into bioethanol and sustainable aviation fuel (SAF).

Market Opportunity & Growth Strategy

The potential market for biofuels is upwards of \$50 billion/year in the US alone. There is enough fully renewable, cellulosic feedstock available in the US today to replace half the currently consumed fossil fuels with biofuels. Gasoline supplied for transportation in the US is mandated to contain 10% ethanol, which amounts to around 15 billion gallons/year, and cellulosic ethanol also affords valuable D3 Renewable Fuel Credits that are currently worth \$2.85/gallon which the Company could earn on top of the market price of \$2.65/gallon (as of August 2022). Blue Biofuels envisions significant growth in demand for cellulosic ethanol especially since it is non-food source derived, mandated in steadily increasing volumes, and has very attractive incentives.

SAF supply is lagging far behind demand worldwide. Blue Biofuels has a license agreement with Vertimass for ethanol to jet fuel technology, and production facilities converting ethanol to SAF are coming online regularly. Management thinks Blue Biofuels is excellently positioned to fulfill serious growth demand in ethanol and SAF due to the wide availability of cellulosic feedstocks, the low expected capital cost of the CTS process, a short timeline to cellulosic sugar production, easy access to existing or newly built ethanol production infrastructure, and very supportive government incentives.

Technology

Blue Biofuels has a patented technology that converts virtually any plant material into sugars and lignin. The sugars can be further processed into cellulosic ethanol using industry-standard technology. The lignin isolated from the process is sulfur free and has a wide array of potential commercial applications.

We have demonstrated the ability to achieve full conversion of cellulosic material in feedstocks such as king grass and sugarcane bagasse into soluble sugars. Successful testing at higher capacities of around 2.5 tons/day has been completed in the summer of 2022. A larger-scale CTS reactor is currently being built and is expected to further increase reaction throughputs. A semi-commercial scale pilot plant is expected to be built in 2023 with significantly higher capacities.



Competitive Edge of the CTS Technology

Faster and Cost-Efficient Processing. The CTS system is a continuous-flow mechanical-chemical process that takes less than a minute to convert cellulose into sugars. Low operating costs are expected through our efficient, continuous process, as compared to the current industrial cellulose conversion technology which operates in enzymatic batch reactors that take weeks to convert cellulose to sugars.

Low Cost and Abundant Cellulosic Feedstock. A major cost advantage is that our widely available target feedstocks are much less expensive than corn. Ethanol yields per acre are also higher with our process as we use the entire plant as opposed to just the corn kernel. The CTS process works with virtually any plant material, such as grasses or agricultural waste, with expected costs anywhere from \$0 to \$65 per dry ton. In contrast, corn costs have ranged from \$134 - \$291/dry ton over the past 4 years and are currently around \$250/ton.

Easily Scalable. The mechanochemical nature of the process allows reactor systems to be easily scalable. The proprietary reactor design is modular, and it is estimated that a CTS system with a capacity of 50 tons per hour will cost only 4-5 times more than a CTS system with a one-ton per-hour capacity.

Environmentally Friendly. The CTS process produces 100% renewable and sustainable energy. CTS uses an inexpensive and recyclable catalyst releasing no toxic chemicals into the atmosphere or water supply. The process is carbon friendly as all carbon dioxide liberated during biofuel use was initially absorbed into plant material during growth.

Government Incentives

The US EPA offers a Renewable Identification Number (RIN) for each gallon of fuel produced from renewable sources. Each RIN comes with a renewable fuel credit that varies depending on the source of the renewable fuel. The credit for cellulosic ethanol is a D3 RIN, which is currently \$2.85/gallon (as of August 2022), and this may be earned on top of the present market price of ethanol around \$2.56/gallon. Currently, the US government's Renewable Fuel Standard (RFS) mandate is for 770 million gallons of cellulosic biofuels to be blended into the fuel supply in 2022, up from 620 million gallons in 2021, and 510 million gallons in 2020. The RFS mandate for 2022 calls for 20.77 billion gallons of total renewable fuel. Cellulosic mandates for future years are likely to be a higher percentage of the total, especially if companies like ours are able to produce sizeable quantities of cellulosic ethanol and cellulosic jet fuel. Individual states like California offer additional incentives.

Timeline

We expect to have completed large-volume testing by the end of 2022 and should begin building and testing a pilot plant in 2023. We will engage a third-party engineering firm to design and integrate the CTS system into the pre-processing and post-processing elements of the pilot plant, thereby, allowing the techno-economics of a full-scale plant to be calculated. We expect to have a commercial-scale CTS reactor operational by the end of 2023.