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California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Low Carbon Fuel Standard – Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

Dear Air Resources Board Staff.

Thank you for the opportunity to provide comments on Potential Future Changes to the LCFS Program. AgLand Renewables is a strong supporter of the program's efforts to reduce the carbon intensity of fuels as well as the state's goals to achieve carbon neutrality.

AgLand Renewables LLC, the California subsidiary of CleanBay Renewables Inc., owns and develops bioconversion facilities to provide the sustainable processing and conversion of poultry litter into renewable natural gas (RNG) and organic controlled-release fertilizer. AgLand's process combines field-proven Anaerobic Digestion (AD) and Nutrient Recovery (NR) technologies into community scale bioconversion facilities specifically designed to process poultry litter. Unlike most AD projects, these bioconversion facilities are fully enclosed, closed-loop systems, meaning that all water and liquids are reused in the AD process and are not released into the environment. The processing of poultry litter into RNG and organic controlled-release fertilizer will significantly reduce nitrous oxide (N₂O) emissions, which are 300 times more potent than carbon dioxide and 10-15 times more potent than methane.

As follow up to ARB's most recent LCFS workshop and presentation on preliminary design scenarios, we support Alternative C, which would achieve a 35% CI reduction by 2030, and support the state's projected investments in alternative fuel deployments before 2030. This scenario will achieve the program's long-term goals while also supporting continued biofuel production and deployment, including an ultimate goal of 90% CI reduction by 2045 as outlined in the Scoping Plan.

Regarding the CATS Model and feedstock inputs, biomass-based diesel and ethanol both have the potential to contribute greater greenhouse gas (GHG) reductions by leveraging crops grown with enhanced efficiency fertilizers (EEFs), particularly in regions identified as suffering from extensive fertilizer pollution. Fertilizer pollution is the greatest known contributor to N₂O emissions and there are widely available tools to manage fertilizer pollution within the Biomass Based Diesel and Ethanol supply chains.

Furthermore, livestock manure digesters are integral to the fertilizer supply chains that contribute to the described fertilizer pollution. Their potential GHG impact as a responsible solution for manure and as producers and distributors of EEFs could be substantial. With respect to meeting the described carbon targets, we respectfully request including language in the Biomass Based Diesel and Ethanol sections that indicates support for new pathways that can contribute greater GHG reductions by leveraging crops grown with EEFs within regions identified as suffering from extensive fertilizer pollution. We recommend similar support within the Renewable Natural Gas section for anaerobic digestion facilities that choose to invest in methods and equipment to produce EEFs and distribute to the fertilizer pollution regions overwhelming responsible for the bulk of N₂O emissions in California and beyond.





Crediting avoided N₂O emissions in the LCFS Program would contribute to attainment of the goals in the 2022 Scoping Plan, including via further decarbonizing transportation fuel, accelerating substantial reduction of pesticide and fertilizer use, and enhancing sustainable farming practices. In addition, allowing N₂O avoidance in LCFS fuel pathways provides the opportunity for market-driven approach to address critically important N₂O emissions, without additional regulatory pressure on California's agriculture sector.

California is a leader in agricultural production, including poultry, and has a long history of supporting sustainable pollution prevention techniques and technologies to reduce emissions, improve resiliency, and provide economic benefits. AgLand is helping resolve pressing environmental and energy challenges facing California food and agricultural producers and providing low-carbon fuel and waste reduction solutions that substantially reduce greenhouse gas emissions, provide soil, and water quality benefits, and drive economic development in disadvantaged communities in the Central Valley. AgLand plans to install two bioconversion facilities in the Central Valley—home of California's vast poultry production industry—within the next five years. The state-of-the-art facilities will provide a long-term, sustainable source of renewable transportation fuels and controlled-release organic fertilizers that substantially reduce climate pollutants and improve soil health in California.

California is in the top 10 of poultry production in the United States (egg layers and broilers) and generates approximately 700,000 tons of poultry litter annually from over 288 million broiler chickens. Each bioconversion facility would generate 2,250,000 MMBtu's of RNG each year, which would avoid approximately 1,00,000 metric tons Carbon Dioxide equivalent (CO₂e) emissions annually. Moreover, the two California bioconversion facilities would create 250,000 tons of organic, controlled-release fertilizer each year, doubling the amount of farmland that utilizes poultry litter-derived organic fertilizers and displacing conventional, non-organic chemical fertilizers that drive N₂O emissions.

In partnership with the Climate Action Reserve and ICF International, AgLand has developed a fertilizer pollution methodology for quantification, monitoring, reporting, and verification of avoided N₂O emissions attributable to use of controlled released fertilizers. Using best practices in GHG accounting, the approach utilizes geographically differentiated emission factors as compared to international or national scale emission factors to more accurately calculate N₂O emissions and associated emission reductions.

We look forward to the opportunity to work with ARB to recognize N₂O avoidance in LCFS fuel pathways and develop an appropriate carbon intensity (CI) score reduction for avoided N₂O emissions associated with feedstocks used in anaerobic digestion for RNG. Thank you for the opportunity to provide comments on potential changes to the LCFS program.

Sincerely,

Thomas Spangler
Executive Chairman
CleanBay Renewables