

December 2nd, 2022

California Air Resources Board
1001 I Street, Sacramento, CA 95814

Dr. Cheryl Laskowski
Chief, Low Carbon Fuels Standard

Rajinder Sahota
Deputy Executive Officer, Climate Change and Research

Re: November 9th Workshop to Discuss Potential Changes to the LCFS – Comments on the CATS Model

Dear Dr. Laskowski and Ms. Sahota,

Carbon-negative fuels from waste biomass should be an integral part of the State's strategy to meet climate targets, air quality targets, and wildfire prevention goals. These crucial pathways appear to be entirely absent from the CATS model.

My company, Mote, is developing projects to turn California's woody waste into carbon-negative hydrogen. Our first project, currently entering Front End Engineering Design and scheduled to begin construction in 2024, will convert about 300,000 tons per year of woody wastes into 20,000 tons of clean hydrogen for transportation and remove 400,000 tons per year of CO₂ from the air. This technology, and similar technologies for carbon-negative fuels from waste biomass, can be deployed during the period modeled by CATS, and should be fully supported by the LCFS and other state policies.

Mote's concept is a direct spinout of the work that I did with my former colleagues at Lawrence Livermore National Laboratory on the report, *Getting to Neutral: Options for Negative Carbon Emissions in California*. In that report, we assessed methods of carbon removal to meet California's climate targets, as well as options to manage waste biomass, including forest residues from fire management. We found that gasifying biomass to make hydrogen, while capturing and storing CO₂ for geologic storage, was the best option for the bulk of California's carbon removal needs.

This technology is ready to deploy in California. The feedstocks are already available and hydrogen demand is growing rapidly. However, supportive LCFS Policy is critical to getting this technology deployed and scaling it rapidly.

I would be happy to work with CARB to develop appropriate model parameters to forecast and assess carbon-negative hydrogen production within the CATS framework. Alternately, I would be happy to connect CARB staff with researchers who can do the same.

Mote thanks the Board for its climate leadership and thoughtful analysis in support of California and the world.

Sincerely,



Dr. Joshua Stolaroff
Chief Technology Officer
Mote, Inc.
444 South Flower St., 14th Floor
Los Angeles, CA 90071
josh@motehydrogen.com