July 9, 2021

Rajinder Sahota
Deputy Executive Officer of Climate Change and Research
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: California Biomass Energy Alliance Comments on
Carbon Neutrality Scoping Plan Workshop Kickoff

Dear Ms. Sahota:

The California Biomass Energy Alliance ("CBEA") submits these comments on the Staff Presentation on the 2022 Scoping Plan presented June 8, 2021. CBEA members strongly support the goals of SB 32 and are working actively to support the state's greenhouse gas ("GHG") and renewable energy goals.

In assessing progress towards achieving the Senate Bill 32 2030 target and charting a path for California to become carbon neutral by 2045, bioenergy will play a significant role. There are several reasons. First, and most importantly, biomass energy is the single biggest opportunity to address climate change and should be a primary focus of the Scoping Plan. The February 2020 Lawrence Livermore National Lab Report " "Getting to Neutral: Options for Negative Carbon Emissions in California" digs deep into this opportunity with many facets. Waste biomass can remove CO_2 from the air and future development should focus on carbon removal from biomass that is already being burned, landfilled, or allowed to rot. In addition, converting biomass to hydrogen gets the most CO_2 underground and produces a valuable zero-emissions fuel. The combination makes this the most cost-effective CO_2 removal solution at large scale for California. Hydrogen has not been combined with biomass in most models — it is now recognized as a key option.

What cannot be ignored in the report is the suggestion that utilizing existing biomass resources with carbon capture and storage ("CCS") can deliver the same annual GHG benefits as taking every passenger vehicle off California's roads and electrifying every home in the state - and can be cost-effectively accomplished in five years. To the extent we care about electrifying our homes for the sake of climate change, we should care about biomass energy about ten times as much, which is how much greater climate benefit it can provide the state through 2045. California is also primed to take advantage of this opportunity because it is already rich with infrastructure to support growth in this area. The existing infrastructure consists of existing

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power plants, power lines, gas lines, roads, a vibrant fuel supply network and are in areas where the carbon can be sequestered. That is because California's been successfully producing bioenergy for over two decades. If we are going to do this cost-effectively, existing infrastructure will be essential. For example, existing bioenergy plants are primed to take advantage of this infrastructure and invest in modernizing technologies such as gasification, hydrogen and carbon capture and storage.

Finally, California has an oversupply of biomass to fuel these technologies. Organic waste accounts for more than a third of the material in California's waste stream. The state's growers struggle to find home for agricultural waste with approximately 600,000 tons of agricultural material currently being burned in the San Joaquin Valley alone every year. Leaving overgrowth material in the state's ecologically stressed forests leaves the forests at high risk of massively destructive wildfires, impedes the functioning of watersheds, diminishes wildlife habitat, and has other negative effects on the forests. Fifteen million tons of biomass removed for fire control can remove 30 million tons of CO_2 from the air if converted to hydrogen. More analysis may be required to confirm feedstock availability by region, but the state has been looking into this this for decades and has continually concluded there is more organic waste than we know what to do with.

We urge caution, however, as CARB moves forward with the Scoping Plan to maintain close coordination with the California Energy Commission ("CEC"). We are concerned the CEC Staff Presentation on SB 100, presented June 2, 2021, projects zero growth in biomass and hydrogen, and zero mention of biogas at all. These projections contradict statutory requirements for bioenergy, regulations to implement the state's Short-Lived Climate Pollutant Reduction law, numerous Emergency and Executive Orders on wildfire, and several recent CPUC Decisions and proposals. The CEC's projection that California will experience no growth in biomass energy contradicts many statutory requirements, regulations and policies which are accurately listed on slide 19 of the CARB June 8th Kick-Off presentation. This needs to be fixed if the Scoping Plan is going to realize the significant role bioenergy will play in getting to carbon neutral.

We look forward to working with you in the process over the coming year.

Sincerely,

Julee Malinowski Ball, Executive Director
California Biomass Energy Alliance