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May 3, 2022

Deputy Executive Officer Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, California 95814
Submitted electronically via: (submission link or email)

RE: POET Comments on the April 20, 2022 Public Workshop Scoping Plan Update - Initial Air Quality and Health Impacts and Economic Analyses

Dear Ms. Sahota,

POET appreciates the opportunity to provide comments in response to the California Air Resources Board (CARB) on the Public Workshop Scoping Plan Update - Initial Air Quality and Health Impacts and Economic Analyses on April 20, 2022.

POET is deeply committed to reducing emissions from the transportation sector and developing cleaner, affordable alternatives to fossil fuels in California and across the United States. California's air quality and climate challenges require fast and deep reductions from light, medium, and heavy-duty vehicles. Low-carbon liquid fuels align with and complement the strategy toward greater electrification and are crucial to enabling California to achieve climate and air quality goals. There is an important and ongoing role for biofuels as the state works toward achieving carbon neutrality pursuant to Executive Order B-55-18. The 2022 Scoping Plan update will play a pivotal role in defining state actions in the coming decades to reduce emissions from California's transportation sector. It must include a full range of emission reducing strategies to be successful.

About POET
POET is the world's largest biofuels producer and currently operates 33 biorefineries capable of producing three billion gallons of starch and cellulosic ethanol. Renewable clean-burning biofuels like those produced by POET cut carbon emissions by an average of 46 percent compared to gasoline,[1] which can have an enormous impact on reducing the amount of greenhouse gas (GHG) in the atmosphere.

In addition, POET's energy-efficient biorefining processes allow carbon dioxide to be captured for commercial use. CO_2 captured by POET is put to use in everything from carbonated beverages like soda pop and beer to fire suppression systems. Due to this

[1] Melissa J Scully et al *Carbon Intensity of Corn Ethanol in the United States: State of the Science,* 2021

innovation, POET is now one of the fastest growing distributors of practical CO_2 products in the United States.

POET is continuing to innovate to further strengthen the GHG benefits of its products. For example, we partnered with the Farmers Business Network (FBN) on a new initiative called Gradable to track and score the carbon footprint of farmers' production methods. The technology tracks emissions generated from power plants, factories, farms, vehicles, and other processes. The Gradable program positions the biofuels industry and growers to supply low-carbon fuel markets with ever-cleaner renewable fuels, an important component of California's efforts to decarbonize the transportation sector, with the added benefit of encouraging the development of farming practices that can be employed broadly to lower the carbon intensity of agricultural activities in California.

Comments in Response to the April 20, 2022 Scoping Plan Workshop

The "Initial Modeling Results" presented at the March 15 Scoping Plan workshop clearly indicated that liquid fuels will continue to be part of California's transportation energy demand in all scenarios analyzed (see slides 14, 18).[2] The "Initial Air Quality and Health Impacts and Economic Analyses" presented at the April 20 workshop further demonstrate that significant cost savings and public health benefits can be achieved by actions to displace fossil fuels across all scenarios, including CARB's recommended Scenario 3.[3] It is clear that strategies to drive down the carbon intensity of liquid fuels will be needed for California to successfully achieve carbon neutrality and air quality goals.

Biofuels are readily available right now to affordably and significantly support the transportation sector's decarbonization efforts. Analysis from Environmental Health & Engineering shows that corn bioethanol has a 46 percent average lower carbon intensity than gasoline. Innovations across the biofuel production lifecycle have resulted in increasingly cleaner liquid biofuels. These innovations will only continue to further drive down the carbon intensity of conventional and advanced biofuels. Applied across the California light and medium-duty fleets, the emission benefits of displacing fossil fuels with clean-burning bioethanol are significant. For example, **shifting from E10 to E15 in California would annually cut 1.8 million metric tons of GHG emissions from the state's transportation sector – the equivalent of removing 411,000 cars off the road each year.** Renewable fuel blends, like E15, can also provide meaningful cost savings to California drivers.

Additionally, renewable fuel blends **can deliver critically needed public health benefits in support of California's air quality goals** and the 2022 State Implementation Plan. A recent analysis from leading national experts demonstrates air quality and public health benefits from higher bioethanol blends, particularly in disadvantaged communities. The study is the first large-scale analysis of data from light-duty vehicle emissions that examines real-world impacts of bioethanol-blended fuels on regulated air pollutant emissions, including PM, NOx, carbon monoxide (CO), and total hydrocarbons (THC).

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[2] See: E3 *Scoping Plan Workshop: Initial Modeling Results,* March 15, 2022, slides 14 and 18

[3] See: https://ww2.arb.ca.gov/sites/default/files/2022-04/SP22-Initial-AQ-Health-Econ-Results-ws-UCI.pdf; and https://ww2.arb.ca.gov/sites/default/files/2022-04/SP22-Initial-AQ-Health-Econ-Results-ws-RHG_0.pdf.

Specifically, the analysis demonstrates reductions in emissions of primary PM, NOx, CO, and THC associated with higher bioethanol blends.

As CARB continues to examine and develop an optimal approach for California to rapidly drive down GHG emissions, maximizing the role that low-carbon, affordable liquid fuels can play will be key.

CARB is currently evaluating the benefits of modifying California fuel specifications to allow for the sale of E15 blends in the state. This is an important step that CARB can take to achieve immediate climate benefits, which can be further expanded upon through action to ensure California's vehicle fleet is equipped to perform on increasing higher-level blends like E30 and E85 that will deliver even greater emission reductions in the state's transportation fuel sector. Additionally, technologies like renewable gasoline and advanced bioethanol with carbon capture and sequestration – both of which POET is actively exploring – can deliver zero and negative emission solutions in the transportation sector, which as demonstrated in the modeling, will be necessary to reach carbon neutrality.

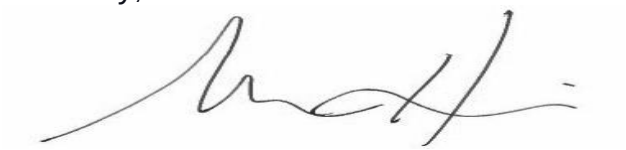
Conclusion

At POET, our mission is to cultivate a world in harmony with nature, where everyone has equal access to affordable, environmentally conscious fuel choices. We are constantly innovating to make biofuel production more efficient while developing more renewable bioproducts that will pave the way to a smarter, more sustainable future.

POET has a key role to play in California's efforts to achieve carbon neutrality. The 2022 Scoping Plan update will set the direction California takes over the next several decades to meet its climate and air quality goals. Rapid and deep decarbonization in the transportation sector is central to this effort. The plan must include all available approaches to be successful.

We thank CARB for this opportunity to comment and look forward to working with CARB staff to make the 2022 Scoping Plan update a success.

Sincerely,



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