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*Comment Received From: Laura Berland-Shane
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Blue Planet Response to Questions Posed at Climate Innovation Program Workshop

Additional submitted attachment is included below.



November 16, 2023

Dr. Steinbuck
Docket Unit, MS-4
Docket No. 22-ERDD-02
715 P Street
Sacramento, California 95814

Re: Blue Planet's Response to the California Energy Commission's Climate Innovation Program Update

Dear Dr. Steinbuck:

I am writing on behalf of Blue Planet Systems to provide our insights and recommendations in response to the questions posed during the recent workshop for the Climate Innovation Program (CIP). We appreciate the opportunity to contribute to the development of this program, which will play a critical role in advancing breakthrough clean energy and climate change technologies in line with California's ambitious goals.

About Blue Planet

Blue Planet is a California company developing technology and products related to economically sustainable carbon capture. Our goal is to solve the carbon capture problem by converting CO₂ into high-value building materials. Our technology can be deployed at cement facilities or other difficult-to-decarbonize industries and captures not only CO₂, but also particulate matter, NO_x, SO_x and other pollutants hazardous to surrounding communities. It can also be coupled with direct air capture facilities and deployed as a carbon dioxide removal strategy. We are currently constructing and beginning operations of a plant in Pittsburg, California on the Sacramento Delta, and our carbon-sequestered aggregate has been utilized at San Francisco International Airport, where carbon-sequestered concrete is specified. Additionally, Blue Planet is a utilization partner in the CALDAC hub in the Central Valley, which was recently selected to receive funding from the Department of Energy.

Blue Planet's technology produces coarse and fine limestone aggregates made from sequestered CO₂ utilizing the carbon mineralization process. It allows lower-cost carbon capture, including from cement facilities, by avoiding the need to purify and enrich captured CO₂ before use, which reduces the cost and energy needs associated with carbon capture. It is also fully scalable and can be applied to any facility in any part of the state where concrete is utilized, regardless of its proximity or access to a geological sequestration site.

Prioritizing Objectives and Technology Families

Blue Planet Systems strongly advocates for prioritizing carbon capture and utilization (CCU), specifically for alternatives to geologic sequestration. We believe that funding dedicated to CCU aligns with the CIP's objectives and provides an efficient pathway for innovation to transition from research institutions to private sector ventures. CCU is still in its nascent stages of deployment and is extremely capital intensive. Economies of scale have not been achieved and the industry requires ongoing economic support to reach commercial scale. Moreover, funding for CCU at cement and concrete manufacturing facilities builds on California's plan to decarbonize cement through SB 596 and SB 905.

Grant Sizes and Technology Stages

In determining appropriate grant sizes and technology stages, we recommend allocating funds to accelerate industrial decarbonization through CCU. Specifically, point source capture of CO₂ from power plants, oil and gas facilities and cement and manufacturing sectors should be prioritized. CCU has been identified as a key strategy for decarbonizing these sectors in the 2022 Climate Change Scoping Plan Update.

Additional Objectives and Technology Families

Blue Planet suggests emphasizing the importance of CCU as an objective, considering its ability to address current permitting and other barriers associated with geologic sequestration. By mineralizing CO₂ and sequestering it into concrete, our technology achieves both industrial and building decarbonization goals simultaneously, providing more of an impactful and cost-effective solution. Additionally, as mentioned above, our capture technology significant criteria air pollutant co-benefits, as well.

Leveraging Federal Opportunities

Blue Planet supports leveraging federal funding and tax incentives (e.g., 45Q tax credits) to accelerate CCU for point source capture of CO₂. There is significant funding for CCU demonstration plants within the Bipartisan Infrastructure Law, but most of the funding requires matching funds, creating a barrier which typically prohibits smaller and emerging companies from applying. Moreover, the tax credit for carbon utilization is 40 percent less than the credit for geologic sequestration, which disincentives investment in carbon utilization technologies.

Ensuring Equity in the Program

To ensure equity within the CIP, Blue Planet's CCU technology offers a unique opportunity. By focusing on industrial emitters, we not only reduce greenhouse gas emissions but also create job opportunities in disadvantaged communities around carbon dioxide industrial emitters. Additionally, our technology addresses health hazards by capturing particulate matter along with CO₂.

In conclusion, Blue Planet Systems is committed to contributing to the success of the CIP, and we urge CEC to prioritize support for CCU technologies under the program. We believe this

approach aligns with the program's objectives, accelerates the timeline to meet climate goals, and provides substantial economic and environmental benefits.

Thank you for considering our input. We look forward to continued collaboration in advancing California's clean energy and climate change goals.

Sincerely,

Laura Berland-Shane
Vice President, Government Affairs
Blue Planet Systems Corporation