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*Comment Received From: Laura Berland-Shane
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Blue Planet Comments on Industrial Decarb and Improvements to Grid Workshop

Additional submitted attachment is included below.



April 26, 2023

Ilia Krupenich, PhD
California Energy Commission
715 P Street
Sacramento, California 95814

Re: Blue Planet Comments on Industrial Decarbonization and Improvement of Grid Operations (INDIGO) (23-ERDD-04)

Dear Dr. Krupenich:

Blue Planet Systems Corporation (Blue Planet) appreciates the California Energy Commission (CEC) hosting the April 11, 2023, workshop discussing Industrial Decarbonization and Improvements to Grid Operations (INDIGO), and the opportunity for public comments. Blue Planet strongly supports CEC's decarbonization efforts to benefit the electrical grid, reduce greenhouse gas emissions, achieve the state's clean energy goals, and reduce air pollution in under-resourced communities. We encourage CEC to think holistically about the opportunity to reach these goals by investing in industrial decarbonization transformative technology, treating priority criteria equally, and supporting scalable solutions.

About Blue Planet

Blue Planet is a California company developing technology and products related to economically sustainable carbon management. Our goal is to solve the carbon capture problem by converting CO₂ into high-value building materials. Our technology can be deployed at a wide array of difficult-to-decarbonize industries, including cement and the power sector. Importantly, our technology captures not only CO₂, but also particulate matter, NO_x, SO_x and other pollutants hazardous to surrounding communities. We are currently constructing and beginning operations of a plant in Pittsburg, California on the Sacramento Delta, which will capture and utilize carbon from a neighboring power plant, and our carbon-sequestered aggregate has been utilized at San Francisco International Airport where carbon-sequestered concrete is specified.

Blue Planet's technology produces coarse and fine limestone aggregate made from sequestered CO₂ utilizing the carbon mineralization process. It allows lower-cost carbon capture, including from direct air capture, 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.

Invest in Transformative Industrial Decarbonization Technologies

We appreciate the enabling legislation (AB 209) specifically defining as eligible projects “novel decarbonization technologies and strategies, including carbon capture for use in products, such as carbonate mineralization and carbon curing of concrete that reduces or eliminates the emissions of greenhouse gases, except geologic storage.” We fully agree that this program should seek to fund new, emerging, and scalable technologies that can provide the greatest greenhouse gas benefits for the industrial sector.

Other project elements referenced as eligible under AB 209 – including load reduction, electrification, energy storage, renewable energy, or energy efficiency – are already funded through various other efforts and at levels far greater than the funding appropriated for this program. Still, California’s industrial facilities account generate more than twice as much greenhouse gas pollution as the state’s power plants do, and we encourage the program to focus on those novel strategies that can serve to decarbonize the sector at scale and that don’t currently have the policy support that many technologies related to load reduction, electrification, renewable energy, storage or energy efficiency already enjoy.

Treat Priority Attributes Equally

While we encourage CEC to prioritize projects and strategies that can deliver the greatest greenhouse gas benefits and that aren’t being supported through other policies or investment programs, we encourage equal treatment of priority criteria, otherwise. In particular, we encourage priority criteria – including smart grid management, maximizing greenhouse emission reductions, and/or the reduction of air pollution to be scored equally in Criteria 1 and Criteria 6. In Criteria 6, in particular, greenhouse gas benefits should either be prioritized (eg, given a multiplier of 5 pts), or every attribute should be scaled similarly (eg, 3.33 pts out of 10 total).

Supporting Scalable Solutions

Blue Planet appreciates CEC’s support of scalable solutions, including carbon capture, mineralization and utilization in products like aggregates. Blue Planet’s technology serves as a transformative effort from a GHG perspective, which can support industrial sector decarbonization, electricity sector decarbonization, and carbon dioxide removal. Blue Planet’s technology provides significant air quality benefits, electricity grid benefits, and enables carbon capture and storage at scale by avoiding the need for CO₂ pipeline and geologic sequestration sites. We support scoring Criteria 3, which accounts for potential to scalability and market impact, and encourage CEC to consider this criterion equal to the technical merit criterion (Criteria 1), and award it a potential total of 20 points.

In accounting for grid benefits, we also encourage CEC to:

- Account for avoided renewable or zero carbon resource needs (in kW) associated with converting existing power plants to utilize carbon capture and utilization.
- Account for energy efficiency benefits (in kW saved) of novel carbon capture solutions that reduce parasitic loads compared to baseline carbon capture technologies.

We are grateful for the opportunity to attend the Industrial Decarbonization and Improvements to Grid Operations workshop, and the ability to comment. This program offers a critical opportunity to advance potentially transformative technologies, and we encourage CEC to develop criteria scoring metrics that will maximize the reach of this program to help achieve California's climate change and energy goals. Please do not hesitate to reach out if you have any questions about Blue Planet, our technology, or the recommendations and comments offered in this letter.

Sincerely,

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