



October 24, 2022

Nicholas Rabinowitsh, Senior Attorney, Legal Office
Rebecca Fancher, Air Pollution Specialist, Legal Office
California Air Resources Board
1001 I Street
Sacramento, California 95814

RE: Charm Comments on the Recirculated Draft Environmental Analysis for the Draft 2022 Climate Change Scoping Plan

Charm Industrial (Charm) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) on the September 21, 2022 Recirculated Draft Environmental Analysis (Draft EA) for the 2022 Draft Scoping Plan Update. Charm is a California based company working in support of State efforts to rapidly drive down greenhouse gas emissions (GHGs) on the path to carbon neutrality. Our innovative negative emissions technology can play a key role in these efforts. We look forward to continuing to work with CARB, its state agency partners and all stakeholders to deliver innovative climate solutions that will provide benefits in California and beyond.

About Our Technology

Charm has developed a proven carbon dioxide removal technology that has already removed thousands of tons of carbon from the atmosphere. Our innovative approach converts waste biomass via fast pyrolysis into carbon rich liquid that is safely and permanently stored underground. Agricultural waste and highly combustible forest residue that would otherwise burn or be left to rot spewing air pollution and GHGs into the atmosphere is instead transformed into a carbon benefit. In addition to the vital climate benefits that negative emissions technologies like bio-oil sequestration provide, our approach delivers critically needed air quality, wildfire risk reduction, forest resilience, and economic benefits in parts of California that most need them like the Sierras and the Central Valley.

Carbon Removal Must Play a Role in Achieving Carbon Neutrality

The recent Sixth Assessment Report by the Intergovernmental Panel on Climate Change underscores the urgent need for collective global action to rapidly cut GHGs.

California has been a global leader in efforts to combat climate change for decades. CARB has spearheaded many of these efforts through the design and implementation of innovative policies and programs that have driven down greenhouse gas emissions, supported the development of new, cleaner technologies, and delivered a range of other economic and environmental benefits for Californians.

To meet state climate goals, including carbon neutrality by 2045, and continue its key role as a global climate leader, California must build on and accelerate actions to rapidly cut GHGs. California needs a clear strategy that will enable us to achieve these goals,, while ensuring that the priority remains on achieving direct emissions reductions across all sectors across our economy. Policies that support emerging carbon negative technologies will ensure continued investment, job creation, and economic growth for California, and encourage this growing sector to continue to build companies in the state.

Comments on the Recirculated Draft Environmental Analysis

As detailed in the Draft EA, carbon dioxide removal and sequestration strategies are a key element of the Proposed Scenario in the Draft 2022 Scoping Plan Update. Specifically, the Proposed Scenario in the Draft Scoping Plan would establish carbon dioxide removal targets of 20 MMT CO₂ in 2030 and 100 MMT CO₂ in 2045.¹ Achieving these targets will require rapid scaling and deployment of innovative carbon dioxide removal technologies, such as bio-oil sequestration.

Charm appreciates the analysis of the potential impacts of the deployment of carbon dioxide removal technologies as part of the Recirculated Draft EA. To date, Charm has delivered the largest carbon dioxide removal in history, permanently removing more than five thousand tons of CO₂ from the atmosphere. As CARB finalizes the 2022 Scoping Plan Update we urge you to fully account not only for the climate benefits that carbon dioxide removal strategies can provide, but also the many positive air quality, public health, wildfire risk reduction and forest resilience impacts that deployment of technologies like bio-oil sequestration can deliver for California.

Conclusion

Charm is fully committed to helping California meet its climate goals. Our company was founded with the singular purpose of developing and bringing technology solutions to the collective effort needed to rapidly turn the tide against climate change. The 2022 Scoping Plan Update is a key opportunity for California to lay out an actionable plan to take full advantage of the role that carbon removal technologies can play.

We look forward to continuing to work with you.

¹ See Recirculated Draft Environmental Analysis, pg. 11, 14, 18, 25

Sincerely,

A handwritten signature in black ink, appearing to read 'Nora Cohen Brown', with a long horizontal flourish extending to the right.

Nora Cohen Brown
Head of Market Development and Policy