



June 24, 2022

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, California 95814

RE: Charm Comments on 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 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 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 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 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. These actions must include a clear and robust policy and regulatory framework that will support and take advantage of the significant benefits that innovative carbon removal and sequestration technologies can deliver. 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.

The Draft 2022 Scoping Plan Should Fully Account for the Benefits that Innovative Carbon Dioxide Technologies Can Provide in California

The Draft 2022 Scoping Plan Update acknowledges that carbon dioxide removal and sequestration technologies must be “an essential tool” in California’s portfolio of actions to achieve carbon neutrality.¹ Scaling these technologies must be a key focus of California’s actions to drive down greenhouse gas emissions. As indicated in the Draft Plan, “enabling policies and regulations” for innovative carbon negative technologies will be key to the success of this effort.²

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 it will be critical to account for the climate benefits that proven carbon dioxide removal technologies like bio-oil sequestration can provide in the near-term for California and to identify specific policy and regulatory actions to support these readily scalable solutions.

Technologies like bio-oil sequestration can be a key element of California’s efforts to further mobilize the state’s Natural and Working Lands sector in climate action. Wildfire poses an increasing threat to California’s public health, safety and climate goals. The State has ambitious targets to remove forest waste as part of the strategy to reduce catastrophic wildfire and increase forest resilience. As the 2022 Scoping Plan update is finalized, CARB should thoroughly evaluate and develop strategies to maximize the removal and conversion of forest waste biomass into carbon negative solutions.

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. Given the urgency of this challenge, Charm urges CARB to consider all immediate actions that the

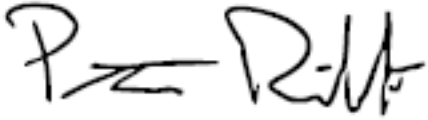
¹ See Draft 2022 Scoping Plan Update, pg. 66, 73.

² See Draft 2022 Scoping Plan Update, pg. 173.

state can take now to begin quickly and safely scaling up negative emission technologies.

We look forward to continuing to work with you.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Reinhardt". The signature is stylized and cursive, with a large initial "P" and "R".

Peter Reinhardt
CEO