



January 5, 2021

California Air Resources Board
1001 I Street
Sacramento, California 95814

**RE: 2022 SCOPING PLAN UPDATE - NATURAL WORKING LANDS SCENARIOS
TECHNICAL WORKSHOP ON DECEMBER 2, 2021**

Charm Industrial (Charm) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) in response to the December 2, 2021 Public Workshop on the 2022 Scoping Plan Update on Natural Working Lands. Charm is a California-based company working in support of state efforts to rapidly drive down greenhouse gas (GHG) emissions 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 and its state agency partners to deliver innovative climate solutions that will provide benefits in California and beyond.

About Our Technology

Charm has developed a proven technology that has already removed thousands of tons of carbon from the atmosphere. Our innovative approach converts waste biomass via pyrolysis into carbon rich liquid that is safely and permanently stored underground. During the process, potash and similar nutrients are returned to the soil, which increases the soil carbon content and improves soil health. 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 can deliver critically needed air quality, wildfire resilience, and economic benefits in parts of California that most need them like the Sierras and the Central Valley.

Charm's Technology Can Play an Important Role in Achieving Carbon Neutrality

California is among the leading agricultural states in the nation and in the world. As the CARB has consistently recognized, the state's agriculture sector must play a key role in effort too achieve California's net zero climate target by 2045. The recent Sixth

Assessment Report by the Intergovernmental Panel on Climate Change ¹ 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 GHG emissions, supported the development of new, cleaner technologies, and delivered a range of other economic and environmental benefits for Californians.

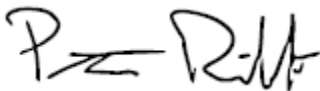
To meet state climate goals, including carbon neutrality by 2045, and continue its key role as a global climate leader, California must build on and accelerate actions to cut GHGs. These actions must include a clear and robust policy and regulatory framework that will support and take advantage of the significant benefits that innovative carbon removal technologies can deliver.

Conclusion

Charm is fully committed to help 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 state could take now to begin quickly and safely scaling up negative emission technologies.

We thank CARB for this opportunity to comment. We look forward to CARB's 2022 Scoping Plan Update final scenario plans and models and continuing to participate in the stakeholder process.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter Reinhardt". The signature is stylized and written in a cursive-like font.

Peter Reinhardt
CEO

¹ https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf