



September 3, 2021

California Air Resources Board  
1001 I Street  
Sacramento, California 95814

**RE: Public Workshop on 2022 Scoping Plan Update – Scenario Concepts  
Technical Workshop**

Charm Industrial (Charm) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) in response to the August 17, 2021 Public Workshop on the 2022 Scoping Plan Update – Scenario Concepts Technical Workshop.

Charm is a California based company working in support of state efforts to rapidly drive down greenhouse gas emissions on the path to carbon neutrality. Charm looks 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.

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 achieving carbon neutrality by 2045 or sooner, California must build on and accelerate actions to cut greenhouse gas emissions. The recent Sixth Assessment Report by the Intergovernmental Panel on Climate Change underscores the urgent need for collective global action to rapidly cut greenhouse gas emissions. At this very moment, climate change is wreaking devastating impacts on California and across the planet.

We appreciate the wide range of issues that the California Air Resources Board is considering as part of the 2022 Scoping Plan Update. The Scoping Plan Update will set the course that California must take to meet critical climate goals. Given the importance of moving as expeditiously as possible, we urge CARB to remain on schedule to adopt

an updated plan by the conclusion of 2022 as presented at the initial Scoping Plan kickoff workshop in June.<sup>1</sup>

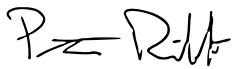
Charm supports CARB's effort to evaluate "scenario design options" for achieving carbon neutrality. As presented by CARB at the August 17 workshop, California must "maximize all sinks with the goal of achieving net negative" emissions. Carbon removal technologies have a critical role to play in these efforts and must be part of California's plan to cut greenhouse gas emissions as quickly as possible. Without these technologies, California will not achieve its climate goals.

Charm has developed a proven technology that has already removed thousands of tons of carbon from the atmosphere. Our innovative approach converts waste biomass into carbon intensive bio-oil that is safely and permanently stored underground. Agricultural waste and highly combustible forest residue that would otherwise burn or be left to rot spewing greenhouse gases 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 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 and must play. Given the urgency of this challenge, however, Charm also urges CARB to consider all immediate actions that the state could take now to begin quickly and safely scaling up negative emission technologies.

We look forward to continuing to work with you.

Sincerely,



Peter Reinhardt  
CEO

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<sup>1</sup> California Global Warming Solutions Act of 2006, Health & Safety Code § 38561 (h)