



March 28, 2025

California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
[submitted electronically]

RE: Charm Industrial's Comments on the Public Workshop on Carbon Capture, Removal, Utilization, and Storage Program (SB 905)

Dear California Air Resources Board,

Charm Industrial¹ (Charm) appreciates the opportunity to submit comments in response to the California Air Resources Board's (CARB) Public Workshop on Carbon Capture, Removal, Utilization, and Storage Program (SB 905) hosted on February 27, 2025.

The workshop focused on the role of carbon capture, removal and storage technologies in helping the state achieve carbon neutrality by 2045. Charm would like to express our appreciation for the work of CARB staff on this integral issue. As highlighted during the workshop, however, California needs to make significant near-term progress to ensure that carbon removal technologies can scale in time to support achievement of our state's climate goals as detailed in the 2022 Scoping Plan. The SB 905 program will play a central role in scaling a host of innovative carbon removal technologies. To this end, Charm fully supports establishing a comprehensive regulatory framework that promotes a diverse range of technologies to ensure clear pathways for technology participation.

About Our Technology

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. 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 biomass residues into a carbon-rich liquid that is safely and permanently stored underground. Agricultural waste and highly combustible forest residues that would otherwise burn or be left to rot, emitting GHGs into the

¹ <https://charmindustrial.com/>

atmosphere, are instead transformed into a carbon benefit. In addition to the vital climate benefits that negative emissions technologies like bio-oil sequestration provide, Charm's 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. Technologies like Charm's can help to reduce air pollution by utilizing agricultural and forestry residues to prevent them from being burned.

Charm Supports the Establishment of a Regulatory Framework for Carbon Capture, Removal And Storage Technologies

During the workshop on February 27, CARB staff and workshop panelists alike highlighted the need for a comprehensive regulatory framework for carbon capture, removal and storage technologies in California. The regulatory framework established through SB 905 will prove critical in shaping the industry as it scales to meet the state's carbon neutrality goals. Given the novel nature of CDR technologies, a clear regulatory framework that accounts for this new and evolving field is needed. We support establishment of robust regulatory pathways for carbon removal technologies that can demonstrate clear, quantifiable, and rigorously verifiable climate benefits. In developing frameworks for this innovative class of technology, CARB has the opportunity to increase market participation and accelerate growth in alignment with the state's goals.

California's climate leadership is key to driving markets for new clean technologies. The state has been a leader in clean energy, clean transportation, and low-carbon fuels, and is now poised to do the same with carbon capture, removal and storage. California's leadership is more crucial than ever as the federal government reduces investments in climate programs and initiatives. By establishing a regulatory framework for carbon removal technologies, CARB will continue to enhance California's leading role in carbon management and reduction.

Charm Supports CARB's Request for Additional Resources & Recommends Establishing an Engagement and Implementation Timeline for SB 905

As highlighted by CARB staff at the outset of the workshop, securing greater access to funding and staff is critical to accelerating progress on the SB 905 process. With adequate resources, CARB can move more swiftly in developing and implementing the program, thereby helping the state accelerate progress towards carbon neutrality. Charm is supportive of CARB receiving the resources and support needed to drive immediate advancements for carbon capture, removal and storage technologies, laying the foundation for long-term climate success.

As described in the Governor's 25/26 Budget (BCP for SB 905), CARB can proceed with a clear and detailed implementation plan to fully develop and implement the SB 905 program with additional staffing and resources. Charm encourages a rapid implementation timeline as this will ensure that the state can continue to make progress in the near-term to capture the significant

benefits that carbon removal technologies can provide for California. A well-defined timeline will also send clear and strong signals to technology providers that California remains at the forefront as the place to invest in, develop and deploy innovative climate solutions.

Questions to Support Regulatory Development

Charm appreciates the opportunity to comment on the questions posed by CARB.

Project Permitting - While Charm is supportive of the development of a permitting portal, what is most critical for the industry is a streamlined, simplified approach to project permitting, coupled with resources for permitting agencies to ensure that there is a clear understanding and framework for the full range of CDR technologies. A coordinated approach is key to enabling CDR companies to scale in California.

Financial Responsibility - Charm supports alignment with existing Underground Injection Control regulations regarding financial responsibility for underground geologic storage. However, Charm requests the ability to perform basic well testing on orphan wells before assuming financial responsibility for the wells. This enables Charm to reuse and then plug and abandon wells that are on the state's orphaned well list, which addresses environmental harms.

Criteria and Toxics Monitoring - Charm is supportive of criteria and toxics monitoring for projects in accordance with current regulations with annual audits, as is typical for air permitting. Because many CDR approaches are novel, there should be some flexibility for R&D periods built into the program. However, for a CDR project to be successful, rigorous measurement and monitoring is critical, and Charm already measures emissions beyond the scope of current regulation. As noted above, by processing feedstocks from wildfire fuel reduction projects and agricultural residues, Charm helps improve air quality by avoiding emissions.

Conclusion

Charm is fully committed to helping California meet its climate goals. Given that carbon removal will be an essential tool to achieve carbon neutrality, it is important to ensure that the state has the regulatory framework and clear pathway for continued progress on SB 905 to ensure that the market can pilot, deploy, and scale CDR technology. We appreciate the CARB team's work on this important topic and look forward to continuing to collaborate with CARB.

Sincerely,



Nora Cohen Brown
Head of Market Development and Policy