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Docket Number:	25-ERDD-01
Project Title:	Carbon Management Hub RFI
TN #:	261330
Document Title:	Verified Carbon Development LLC Comments - Verified Carbon Development RFI
Description:	N/A
Filer:	System
Organization:	Verified Carbon Development LLC
Submitter Role:	Public
Submission Date:	1/28/2025 10:43:18 AM
Docketed Date:	1/28/2025

*Comment Received From: Verified Carbon Development LLC
Submitted On: 1/28/2025
Docket Number: 25-ERDD-01*

Verified Carbon Development RFI

Additional submitted attachment is included below.

Verified Carbon Development LLC

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Response to California Energy Commission RFI: Carbon Management Hub

28 February 2025

Submitted by Verified Carbon Development LLC, on behalf of Concho DAC LLC

Interest in Partnering and Organizational Expertise

Verified Carbon Development LLC, in collaboration with Return Carbon USA under the joint venture Concho DAC LLC, is well-positioned to contribute to the development of a carbon management hub in California. As a leader in Direct Air Capture (DAC) development, our expertise encompasses geological storage, DAC technology integration, and project financing.

Our flagship project, Project Concho, located in Tom Green County, Texas, is a renewable-powered DAC facility designed to capture and permanently store up to 500,000 tons of CO₂ annually. This facility is co-located with a wind farm and serves as a scalable model that integrates renewable energy with carbon removal infrastructure. Leveraging this experience, we are actively seeking opportunities to replicate this model in California through partnerships with local renewable energy developers, enabling the state to accelerate its carbon removal goals while integrating renewable energy resources.

We bring extensive experience managing over 35 carbon capture and storage (CCS) projects, including those utilizing Class VI injection wells, and have developed expertise in regulatory compliance, stakeholder engagement, and Monitoring, Reporting, and Verification (MRV) standards. Our proven ability to deliver large-scale carbon removal solutions aligns directly with California's ambitions for a carbon management hub.

State-Level Support Needed to Advance Carbon Management Hubs

To successfully scale a hub-based approach in California, the following state-level support mechanisms are critical:

1. **Streamlined Permitting Processes:** Simplifying permitting requirements for DAC and CCS projects will enable faster deployment.
2. **Stakeholder Convening:** Facilitating partnerships between technology providers, renewable energy developers, and community organizations will enhance collaboration and public trust.
3. **Technical Assistance:** Providing access to state-led expertise on regulatory frameworks and infrastructure planning will mitigate development risks.
4. **Community Engagement:** Supporting public awareness campaigns and inclusive community outreach to ensure equitable benefits and address concerns.

These measures will accelerate the integration of DAC technologies with California's renewable energy and carbon management ecosystems.

Technology Readiness Level and Potential Outcomes

The DAC technology utilized in our projects, Skytree's Stratus system, has achieved Technology Readiness Level (TRL) 8, demonstrating operational readiness with a modular design that enables scalability. Project Concho's initial phase will capture 50,000 metric tons of CO₂ annually, scaling up to 500,000 metric tons in future phases. The DAC system also produces water as a byproduct, contributing to water scarcity solutions. By integrating this technology with renewable energy, we can ensure net-negative emissions while supporting grid reliability. In California, deploying this model could showcase a replicable, large-scale solution aligned with the state's carbon neutrality goals.

Render of Project Concho: Tom Green County



Challenges in Scaling a Hub-Based Approach

While the hub-based approach offers significant potential, challenges remain:

1. **Funding Gaps:** Securing long-term financing for both construction and operations remains a key challenge. Access to federal funding and state-level incentives can mitigate these risks.
2. **Permitting Complexity:** Addressing permitting delays at state and federal levels is critical to maintaining project timelines.
3. **Infrastructure Development:** Ensuring timely construction of CO₂ transport and storage infrastructure will require collaboration with state agencies and private stakeholders.
4. **Renewable Energy Integration:** Expanding partnerships with renewable energy developers in California will be essential to replicate the model established in Texas.

Our experience in managing these challenges positions us well to deliver efficient and scalable solutions within a California hub framework.

Proposed Role in the Carbon Management Hub

Verified Carbon Development LLC will serve as a technology integrator and project developer, focusing on the deployment of modular DAC systems powered by renewable energy. We will leverage our expertise in permitting, MRV compliance, and stakeholder engagement to ensure successful implementation. Additionally, we will collaborate with renewable energy developers in California to replicate our co-location model, optimizing both carbon removal and energy production.

Best,

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