



CarbonCapture's Project Bison, rendered here, plans to ramp up to five megatons a year of carbon dioxide removal by the year 2030. A partner, Frontier Carbon Solutions, will then sequester the carbon underground.

'Project Bison' DAC Plant to Start Up in Wyoming This Year

By Mark Fogarty

CarbonCapture's Project Bison is planning on working on two tracks over this decade: ramping up its active carbon dioxide removal to five megatons a year and reducing the cost of the process.

CarbonCapture chief executive Adrian Corless briefed a meeting hosted by the OpenAir Collective that Project Bison, a direct air capture (DAC) plant in southern Wyoming, will go live this year and ramp up in five phases: from 10,000 tons a year this year, to 200,000 tons by 2026, to one megaton a year by 2028, and to five megatons annually between now and 2030.

The CarbonCapture website calls Project Bison "the first of its kind, leading a new era of large-scale atmospheric carbon removal projects."

CarbonCapture, based in Los Angeles, will focus on modularity so that successful operations can be scaled up incrementally, both in America and eventually around the world, he said. And it wants to scale up in a hurry.

"The cycles must be in years, rather than decades," he said.

The process at the Wyoming plant will take carbon out of the air and inject it down a Class VI well for permanent storage. Air heated to 80 degrees Celsius will liberate Co2 in 16 reactors and then its partner, Frontier Carbon Solutions, will be in charge of the sequestration. The direct air capture will take about 30 minutes, he said.

"The choice of sorbent has a major impact on costs," Corless told the meeting.

"Our hardware is designed to work with multiple sorbent families."

However, he said, in the quest to decrease costs to \$100 a ton, "the best sorbent hasn't been invented yet."

The CarbonCapture website at [Project Bison \(carboncapture.com\)](https://carboncapture.com) gives a thorough description of the project.

It calls Project Bison "the first of its kind, leading a new era of large-scale atmospheric carbon removal projects."

CarbonCapture expects Project Bison to be the largest DAC plant in the world when it reaches five megatons of carbon removal by 2030.

And it says it will be the first to use Class VI injection wells for permanent storage of carbon dioxide in deep saline aquifers when it starts later this year.

It also touts the scalability of its model.

"Due to the modular architecture of our technology, the potential to develop extensive new renewable energy facilities, wind and solar, in the area, and the geologically scalable storage features of our site, Project Bison has no practical limits to scaling to megaton levels and beyond."



“We plan to continue installing capacity as quickly as modules come off our production line,” says Corless. “Our goal is to leverage economies of scale to offer the lowest priced DAC-based carbon removal credits in the market.”



An artist's rendering of CarbonCapture's Project Bison.

The firm will generate carbon credits from these efforts, to be sold to “organizations with net-zero goals who seek to offset their unavoidable emissions.”

Advance sales have already begun, to founding channel partners such as TIME and Cloverly.

It says the credits will be “additional”: meaning they won’t be generated unless a customer is ready to buy them. And it says the amount of carbon dioxide will be precisely metered and measured, with a third-party verification report. And the carbon will be captured and secured for more than 1,000 years.

“We plan to continue installing capacity as quickly as modules come off our production line,” says Corless. “Our goal is to leverage economies of scale to offer the lowest priced DAC-based carbon removal credits in the market.”

CarbonCapture says it has made a commitment to the state of Wyoming based on three “pillars”: transparency, dependability and preservation, “to ensure preservation of Wyoming’s wildlife and natural beauty.”

Wyoming was selected, the company says, “due to the broad availability of renewable and zero-carbon energy sources as well as the favorable regulatory and operating environment for carbon storage.”

CarbonCapture notes “A federal interagency working group has designated parts of Wyoming as some of the nation’s most impacted communities from coal mine and power plant closures. CarbonCapture is working closely with community stakeholders to ensure that Project Bison offers well-paying energy transition-related jobs and preserves the wildlife and natural beauty that makes Wyoming unique.”