DIRECT AIR CAPTURE + STORAGE

A real solution for achieving net zero carbon emissions in California

With some of the most ambitious decarbonization goals in the world, California is a global climate leader that is pursuing innovative technology solutions to achieve its emissions reduction goals. **Direct Air Capture + Storage (DAC+S)** is a technology that can remove and then permanently store atmospheric carbon dioxide (CO₂) using low carbon emission energy and provide economic benefits to surrounding communities. At California Resources Corporation (CRC), we are committed to the energy transition and **we champion innovative technologies like DAC+S** to help decarbonize our local economies in alignment with the state’s goals.

**What is DAC+S?**

DAC+S is a process that **removes CO₂ from the air and transports it via pipeline to a sequestration reservoir for safe and permanent underground storage.** In its simplest form, air is pulled in with a fan and passed through a filter which absorbs the CO₂. Heat is then employed to release the captured gas. Captured CO₂ can then be cooled, compressed and safely injected deep underground for permanent storage.

**Why do we need DAC+S?**

According to the Intergovernmental Panel on Climate Change (IPCC), carbon removal methods such as DAC+S are **key to mitigation pathways aimed at keeping global warming to below 1.5 degrees Celsius.** Additionally, the U.S. Department of Energy (DOE) states that advancing the deployment of DAC and other carbon dioxide removal approaches will be critical to meeting our net-zero emissions targets and helping mitigate climate change. In 2022, the California Air Resources Board (CARB) released its California Climate Plan to implement the most ambitious climate action of any jurisdiction in the world, **including annual carbon removal and capture targets.**

CARB GOALS INCLUDE ANNUAL CARBON REMOVAL/CAPTURE TARGETS OF

**30 MILLION** METRIC TONNES of CO₂ equivalent by 2030

**100 MILLION** METRIC TONNES by 2045
Working closely with our local community partners, California DAC Hub, combined with permanent geological storage, will be essential to combating climate change and helping build a clean and equitable energy economy that benefits all California communities.

COMMUNITY BENEFITS
DAC+S will help accelerate California’s climate leadership and achieve its carbon neutrality goal, while prioritizing surrounding diverse communities through transformative benefits.

STATE & LOCAL ECONOMY
- Economic Output ~ $2.9 billion
- GDP ~ $1.6 billion

LABOR & TAXES
- ~3,000 new construction jobs over 3 years*
- ~300 jobs per year in operating/maintenance/services for 20 years*
- ~$390 million paid in state taxes*

* Expected community labor and tax benefits.

This project is more than a shared DAC infrastructure project; it serves as a hub model that delivers community benefits and jobs for other parts of the U.S. that also face climate change induced challenges.

Fiona Ma, California State Treasurer

REGIONAL HUBS
The regional DAC hubs are targeted to launch in Kern County, with plans to expand across the state. The hubs will capture and permanently store CO₂ using mostly on-site low carbon emission energy and backup power from the grid.

Vital to the success of the regional hubs will be strong relationships with diverse community stakeholders to develop an equitable, just and environmentally responsible approach to the project.