CALCAPTURE

A real solution for achieving net zero carbon emissions

California is a leader in addressing climate change. With some of the strongest decarbonization goals in the country – 40% emissions reductions by 2030, carbon neutrality by 2045, and net-negative emissions thereafter – the state is committed to pursuing innovative technology solutions to achieve its emissions reductions and mitigate climate change. One technology, **carbon capture and storage+ (CCS+)**, is a real solution for reaching and maintaining carbon neutrality, and helping California meet its ambitious emissions reduction goals.

CRC is the proven **operator of choice** in California for safety and environmental stewardship

What is CCS+?

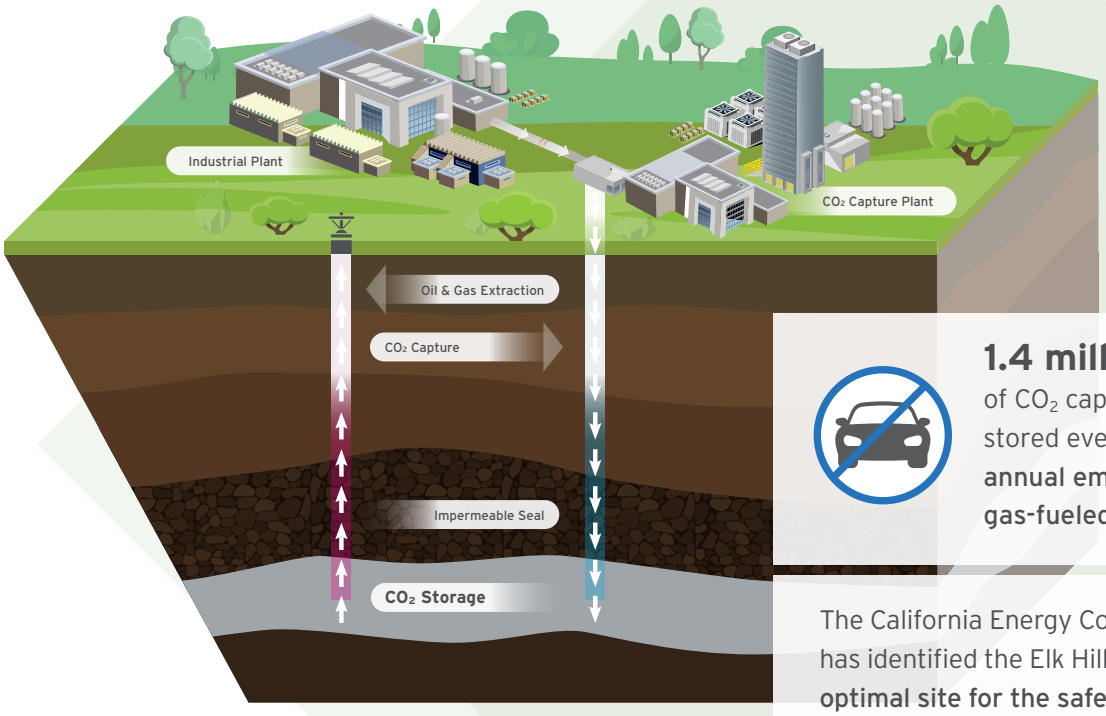
CCS+ is the proven process of safely capturing carbon dioxide (CO_2) from industrial processes such as power generation or industrial facilities and injecting and permanently storing the CO_2 deep underground for permanent sequestration in oil producing reservoirs.

The United Nations has stated that carbon capture technology is necessary to meet the goal of the Paris Climate Accord to limit temperature rise to less than 2 degrees Celsius by 2050. The International Energy Agency calls carbon capture "one of the only technology solutions that can significantly reduce emissions from...power generation and deliver the deep emissions reductions needed across key industrial processes..., all of which will remain vital building blocks of modern society."

Capture: Multiple technologies have been developed to separate CO_2 from industrial flue gases and other gases produced at facilities such as power plants, refineries, and processing plants. These facilities are commonly retro-fitted, capturing up to 95% of the targeted CO_2, and enabling them to continue operating with significantly lower CO_2 – with the goal of net-negative emissions.

Transportation: After CO_2 is captured, it is transported to the point of use or permanent storage. Transportation is commonly done by truck or pipeline. In some cases, existing oil and gas pipelines and pipeline corridors can be used to minimize surface disturbance and impact. CO_2 transport is a safe and well-established process using proven technology. More than 50 pipelines stretch 5,000 miles across the US, transporting more than 60 million tons of CO_2 annually.

Storage and "Net Zero" Oil: Next, the captured CO_2 is injected into underground oil formations, displacing remaining oil and permanently storing (called sequestering) the CO_2 deep underground into geologic formations for permanent sequestration in oil producing reservoirs – with the potential to produce full-scope "net zero" barrels of oil.



1.4 million metric tons*
of CO_2 captured and permanently stored every year – **the equivalent annual emissions from 300,000 gas-fueled passenger vehicles**

The California Energy Commission has identified the Elk Hills Field as **"an optimal site for the safe and secure sequestration of CO_2"** and "one of the premier...sequestration sites in the U.S."

CalCapture CCS+ Project

CalCapture is CRC's CCS+ project that will capture CO_2 from our 550-megawatt, natural gas-powered Elk Hills Power Plant in Kern County and inject and permanently store that CO_2 deep underground for permanent sequestration in oil producing reservoirs. **This project has the potential to produce California's first full-scope "net zero" barrel of oil made in California by Californians.** During the CalCapture CCS+ project, CRC is targeting initial injection of 1.4 million metric tons of CO_2 per year and averaging approximately 7,000 incremental barrels of "net zero" oil per day over the life of project.

Through CRC's CalCapture CCS+ project, **the equivalent emissions from 300,000 gas-fueled passenger vehicles** will effectively be removed each year, and emissions from the Elk Hills Power Plant will be significantly reduced, further supporting California's climate goals and the Paris Climate Accord.

Carbon capture is a pillar of CRC's carbon management strategy and **2045 Full-Scope Net Zero Goal** for scope 1, 2 and 3 emissions – a goal that places CRC among a select few industry peers to include scope 3 emissions in their Net Zero goal.

For CalCapture, CRC partnered with the Electric Power Research Institute and Fluor Corporation to complete an initial Front-End Engineering Design (FEED) study. The FEED study received financial assistance from both the U.S. Department of Energy (DOE) – one of only nine carbon capture projects around the country that DOE selected in 2019 – and from the climate investment arm of the Oil and Gas Climate Initiative (OGCI). In April 2022, CRC entered into an agreement with NEXT Carbon Solutions (NCS), a subsidiary of NextDecade Corporation, to further explore the decarbonization of CRC's Elk Hills power plant through the application of NCS' proprietary post-combustion carbon capture processes for the CalCapture project.

CRC has partnered with OGCI Climate Investments to form a joint venture, Elk Hills Carbon LLC. OGCI Climate Investments has invested in Elk Hills Carbon LLC and will provide technical input into the project. CRC envisions CalCapture as the central component of a robust future carbon capture network in California.

CALIFORNIA RESOURCES CORPORATION

* Does not include minimal emissions from the capture process.