

What Are The Top Carbon Capture Projects in 2022?

Many experts see carbon capture projects as key infrastructure additions in the global push towards reaching net-zero. With the Intergovernmental Panel on Climate Change's (IPCC) [latest report](#) warning of a fading window of time to act on rapid emission reductions, decision-makers are working towards enacting solutions capable of having an impact.

Carbon capture and storage (CCS) technology is being implemented as a way of reducing the amount of emissions from industrial sources, as well as those already found in the atmosphere. There are several active and planned carbon capture projects [around the world](#) that are setting the tone in global emissions-reduction projects.

Carbon Capture Projects in North America

North America is a leader in CCS facilities, counting twenty-six in active use and forty-three more to be brought online in coming years. The United States and Canada each have [thirteen](#) active carbon capture projects, with the latter planning for [another thirteen](#) to be built soon.

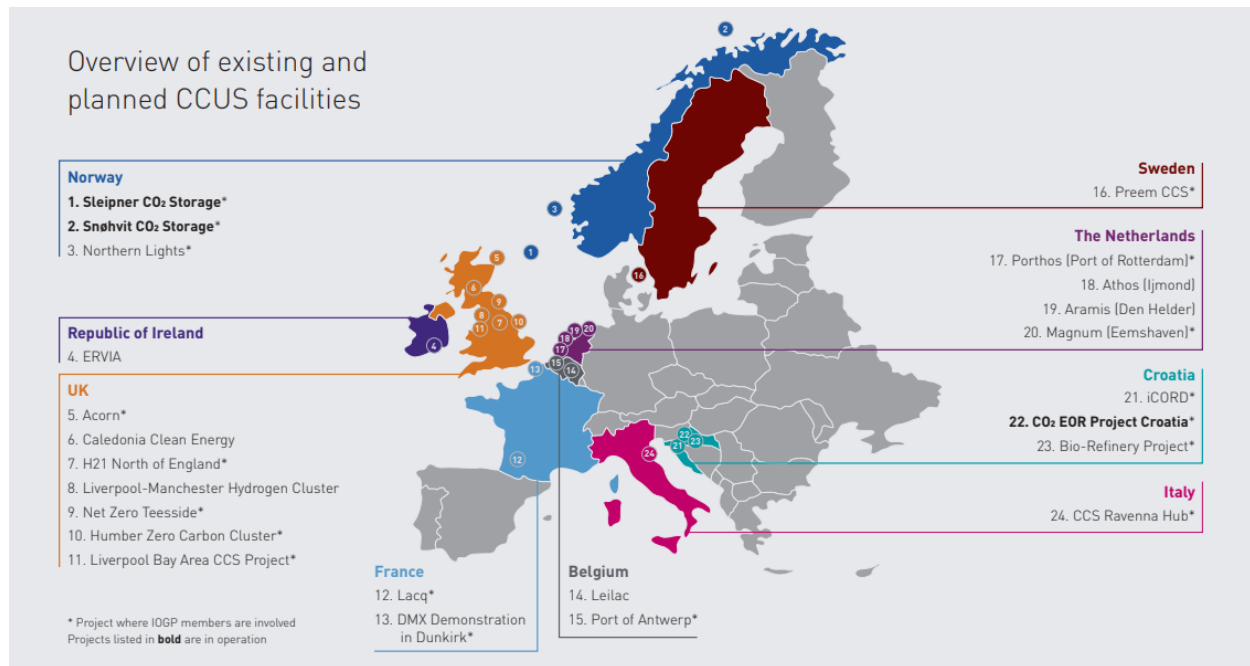


Source: [U.S. Energy Information Administration](#)

The Texas-based Century Plant is considered the most [successful](#) carbon capture project in North America, absorbing 8.4 million tons of CO₂ per annum (MTPA). The next three CCS projects on the list, Shute Creek, Great Plains Synfuel, and Petra Nova, are all American and responsible for 11.6 MTPA. Rounding out the top-5 is Canada's Boundary Dam project, which takes in 1 MTPA.

Carbon Capture Projects in Europe

According to a Clean Air Task Force [report](#), over 20% of all applications to the EU Innovation Fund are for carbon capture projects. Rapid growth is expected in this sector as the global leader in net-zero continues to ramp up its carbon emissions reduction plans.



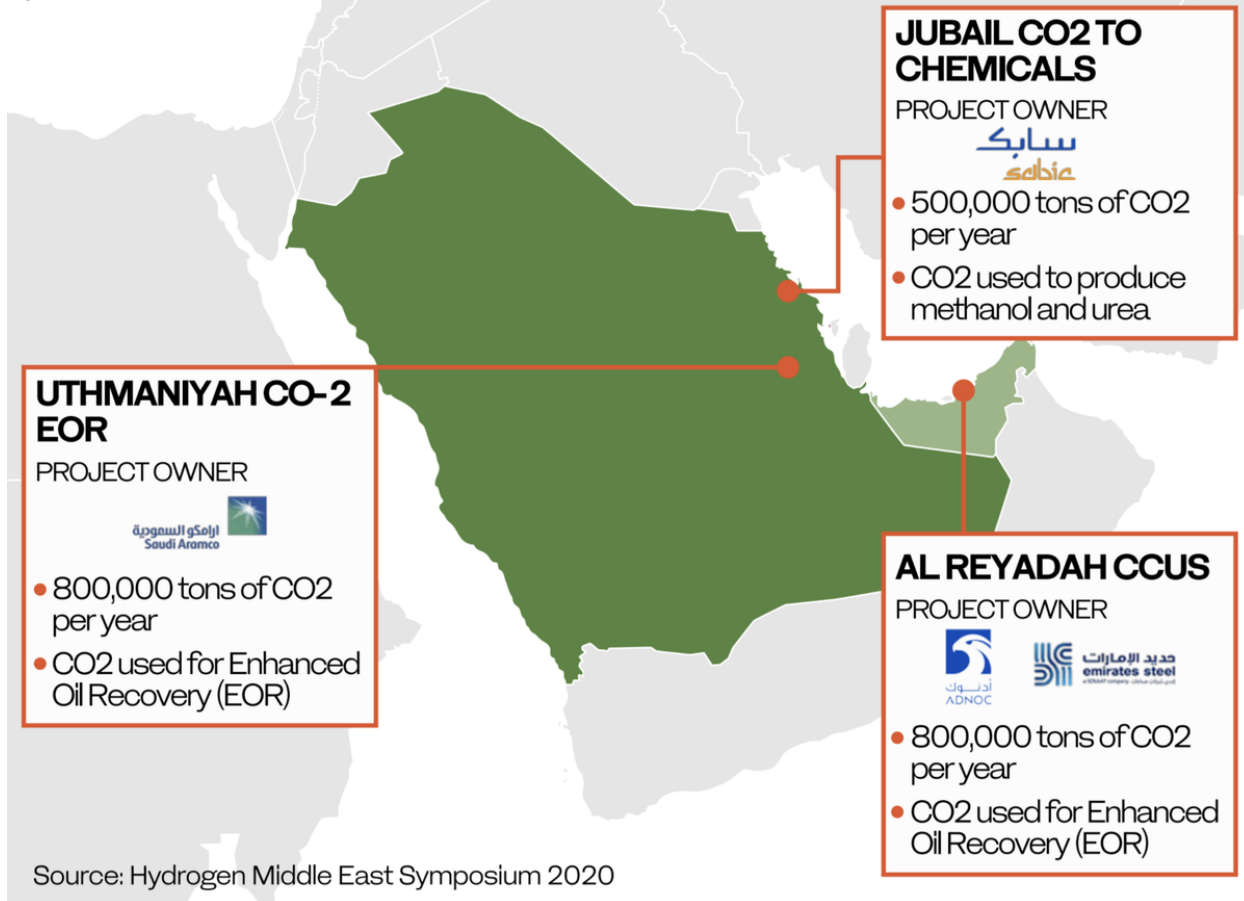
Source: [European Files](#)

The European Union has several carbon capture projects that are being built in tandem with a planned rollback of their fossil fuel sector's operations. Unlike other regions, the EU has indicated a desire to not couple CCS within its energy sector, namely natural gas, but rather to have them as independent additions to the overall infrastructure.

Carbon Capture Projects in the Middle East

ENABLING A CIRCULAR CARBON ECONOMY

Carbon Capture, Utilization and Storage (CCUS) plants in the GCC



Source: [Twitter](#)

There are three carbon capture projects [currently active](#) in the Middle East. More are underway as the region continues to develop strong energy and innovation policies to meet their net-zero goals. In addition to CCS, countries like the UAE are seeking to create low-carbon steel and blue hydrogen for export, as well as financing renewable energy transitions [overseas](#). Saudi Arabia has also announced a fund for carbon capture projects that will help develop more CCS plants in the region.

Other Global Carbon Capture Projects

In Asia, the Pacific, Africa and Latin America, carbon capture projects are in various stages of development. Asia has is a [prime candidate](#) for energy-related CCS, either pre or post-combustion, as the region's energy demands continue to rise. Bolstered by large amounts of liquified natural gas projects coming online in

Asia, experts see CCS playing a significant role in reducing related emissions. Pilot plants are being put online to test feasibility in Africa, while carbon capture projects in Australia and Latin America have had mixed successes.

Carbon Capture Can Augment Renewable Energy

To reach the global target of limiting global warming to 1.5 degrees, there must be a fast reduction of carbon emissions entering the atmosphere. This means reducing fossil fuel consumption, creating more sustainable supply chains, and developing technology capable of creating low-carbon [transport](#), [energy](#), and [economies](#).

As such, the adoption of carbon capture is becoming a go-to for many decision-makers who are keen on continuing industrial outputs and using fossil fuels but want to reduce overall emissions. Carbon capture projects have been touted as a key tool in the fight against climate change and environmental degradation.

While carbon capture definitely has a place in the world's low-carbon future, it is not a fix-all solution – it is only an addition to [hard decarbonize industries](#). Decision makers can't see carbon capture as a reason to maintain the status quo. The world still needs widespread adoption of renewable energy.