CARBON CAPTURE AND STORAGE AND ADM



WHAT IS CARBON CAPTURE AND STORAGE (CCS)?

- Carbon capture and storage (CCS) uses the Earth's natural trapping system to store CO₂, and a natural element already found underground.
- CO₂ is captured from industrial facilities, purified and then compressed into liquid form. Ethanol plants produce nearly pure CO₂, removing the purification step, and making them ideal choices for CCS.
- Liquified CO₂ is then transported via pipelines to storage wells where it is safely injected into sealed off geological formations and can be stored securely for millions of years.
- CCS is considered a key technology in reducing global CO₂ levels and has been proven to be effective and safe at a large-scale commercial level.
- The Illinois Basin features the Mt. Simon Sandstone Saline Reservoir more than a mile underground, as well as several layers of shale rock, making it a good location for CCS storage.
- CCS is an important technology as we look at a variety of ways to decarbonize our footprint and meet the growing demand for low-carbon energy and ingredient solutions.



ADM'S PROVEN TRACK RECORD WITH CCS

- ADM is a national and world leader in the implementation of CCS technology.
- ADM was the first company to be a granted a Class VI CCS well permit by the United States Environmental Protection Agency and has been successfully operating CCS wells in Decatur for more than a decade.
- ADM has worked with the Department of Energy and the Illinois Geological Survey at the University of Illinois for many years to validate the safety, security and effectiveness CCS technology.
- To date, ADM has successfully injected more than 3.9 million tons of CO₂ safely more than a mile under the earth. We are working to increase the capacity of our well storage to further leverage this proven technology.

CCS EXPANSION

CCS is an important and proven technology as ADM looks to implement a variety of different strategies to decarbonize our footprint. CCS can help us meet the growing demand for low-carbon energy and ingredients solutions, add value to ADM products and potentially reach new markets in the future. We are looking to further leverage our existing CCS capabilities in several different ways, including:

- Expanding ADM's current CCS well capacity in Decatur
- Connecting our corn processing facilities in Cedar Rapids and Clinton, Iowa, to our existing CCS wells in Decatur through a CO₂ pipeline built and operated by Wolf Carbon Solutions
- Connecting our corn processing facility in Columbus, Nebraska, to a storage site in Wyoming through a project led by Tallgrass Energy Solutions to convert an existing natural gas pipeline to transport CO₂
- Connecting our CCS capabilities to a proposed low-carbon power, heat and steam facility adjacent to our Decatur processing complex.

IS IT SAFE?

- ADM has been injecting liquified CO₂ beneath our North American Headquarters and our extensive plant operations in Decatur for more than a decade.
- ADM has worked closely with state and federal agencies including the Illinois State Geological Survey at the University of Illinois, the U.S. Department of Energy and the U.S. EPA to ensure the safety of the CCS project in Decatur.
- The CO₂ is injected more than a mile underground, far below drinking water supplies. Comprehensive monitoring tools are in place to monitor any potential impacts to groundwater, surface area and the underground geology, including seismic activity.
- 50 CO₂ pipelines covering 5,000 miles have been built in the United States over the last 40 years carrying 68 million tons of CO₂ per year. CO₂ sequestration has been studied extensively by universities, the federal and state government, and ADM, with broad consensus that the process is safe, particularly given the geology of this region.

FOR MORE INFORMATION, VISIT: WWW.ADM.COM/CCS

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