



## Advancing safe, affordable subsurface solutions for the energy transition

Projeo provides geoscience and reservoir engineering technical expertise, experienced operational and field supervision services, and integrated project management for your low-carbon energy projects—CO<sub>2</sub> storage, geothermal, hydrogen storage and critical minerals. Each subsurface project and client has unique requirements—we customize our solutions to meet your specific objectives.

We have a history of government-funded project leadership, and a growing client list that allows us to play an integral, hands-on role in a wide variety of subsurface projects advancing the energy transition. Projeo's expertise has driven multiple leading-edge projects, including the first active EPA UIC Class VI CO<sub>2</sub> injection well dating back to 2011. We leverage our unique experience and extensive network of industry experts to deliver safe, cost-effective, and responsible subsurface solutions. Projeo was acquired by GTI International, a holding company and wholly owned subsidiary of GTI Energy, in January 2022.

### Our Services

#### Plan/Design/Characterize

- Project and Operations Management
- Risk Management
- Well/Completions Design
- Seismic Acquisition and Processing
- Test Well Permitting and Drilling
- Geologic Screening
- Core Program Design and Analysis
- Reservoir Modeling and Simulation

#### Construct

- Tendering and Vendor Management
- Instrumentation
- UIC/State Permit Writing
- Detailed Reporting

#### Operate

- Microseismic Monitoring
- Distributed Fiber Monitoring
- Well Testing Operations
- Geochemical Sampling
- Injection Operations
- UIC/State Permit Reporting

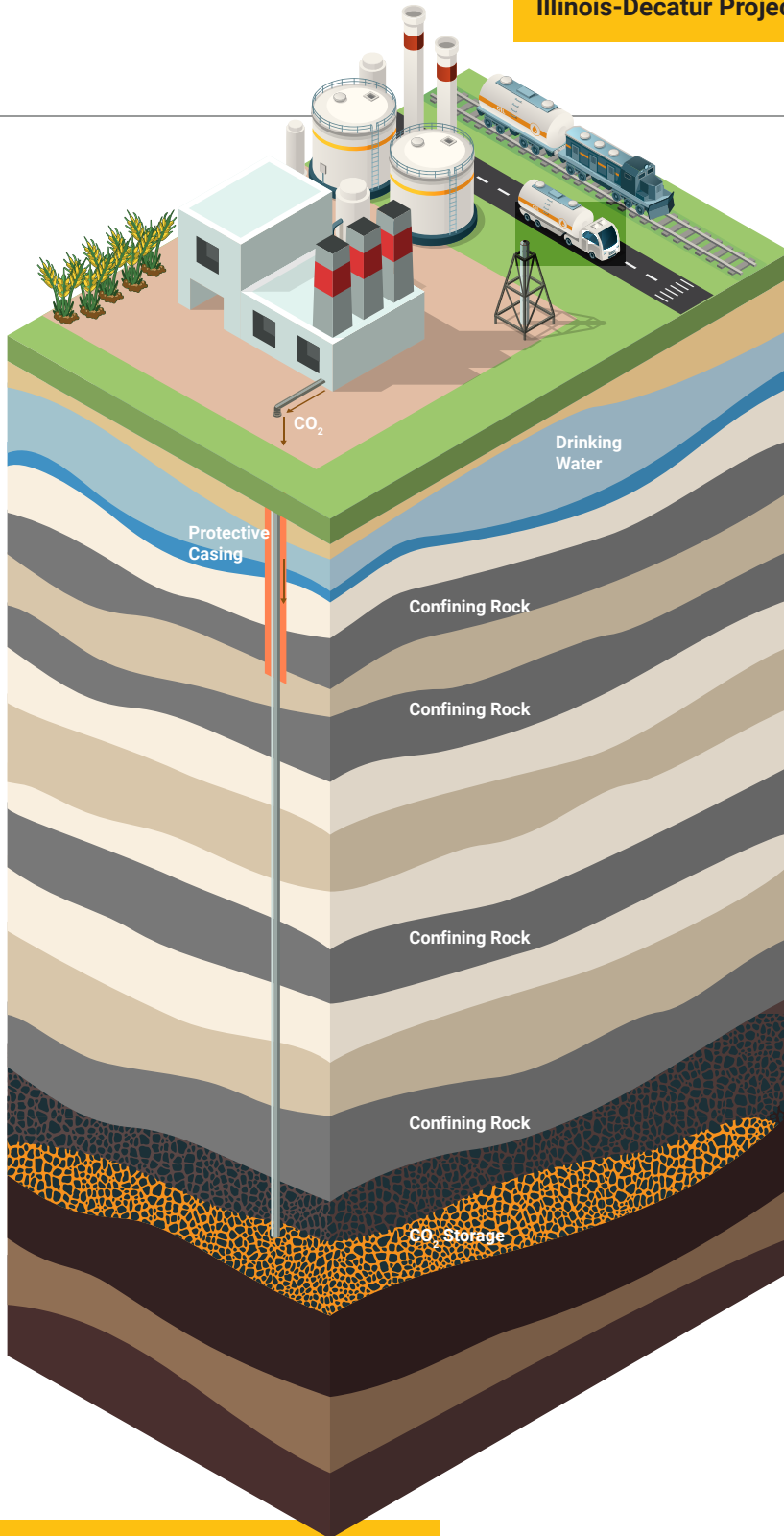
#### Commercialization and Testing

- New Technology Field Testing and Proving Technology Scaling
- Field Test Site Management



## Case Studies

### Class VI Injection Wellhead at Illinois-Decatur Project



### Executing first-of-a-kind large-scale CO<sub>2</sub> injection into a saline formation in the Illinois Basin-Decatur Project

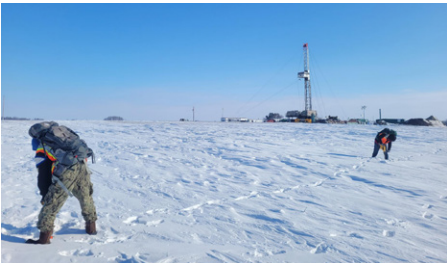
Members of the Projeo team played an important role working with the Illinois State Geological Survey (ISGS) at the University of Illinois at Urbana-Champaign and Archer Daniels Midland (ADM) Company in supporting the Illinois Basin-Decatur Project (IBDP) over a decade ago. Led by the Midwest Geological Sequestration Consortium (MGSC) with funding from the U.S. Department of Energy's Office of Fossil Energy (DOE-FE), the IBDP project confirmed the ability of the Mt. Simon Sandstone to accept and store one million metric tons of carbon dioxide over a period of three years—the equivalent of annual emissions from about 1.2 million passenger cars, according to EPA calculations.

The project well was originally regulated through an Illinois Environmental Protection Agency (EPA) permit as a CO<sub>2</sub> injection well for long-term underground CO<sub>2</sub> storage, and was later moved to the federal regulatory framework for a Class VI CO<sub>2</sub> injection well. This project is the first completed large-scale injection into a saline formation permitted to operate with the U.S. EPA Class VI injection well permit, which creates a pathway for Mt. Simon Sandstone to be used for commercial CO<sub>2</sub> storage.

Conceptual Class VI Well—injecting CO<sub>2</sub> far below ground for long-term storage



**Field crew planning during 3D seismic acquisition operations**



**Supporting the ongoing operations of U.S. EPA Class VI CO<sub>2</sub> injection wells in the U.S.**

Building on the success of the IBDP project, ADM continues to operate the Illinois Industrial Carbon Capture and Storage (ICCS) project through a DOE-FE grant. This long-term project is demonstrating an integrated system of capturing and processing industrial CO<sub>2</sub>, then transporting it from an ethanol plant in Decatur, Illinois to the Mt. Simon Sandstone formation for permanent geologic storage.

The project has showcased CO<sub>2</sub> compression technology, explored long-term CO<sub>2</sub> utilization options, and gathered crucial scientific and engineering data to increase the understanding of large-scale CO<sub>2</sub> storage in saline formations. It has also illustrated the economic viability of implementing CCS at biofuels production facilities. Learnings from this project have been applied to ongoing CCS work to drive successful ongoing outcomes.

Projeo's experts have played an active role in supporting the safe execution of the ICCS project from its start, providing assistance with regulatory modeling, simulation, groundwater monitoring operations, well maintenance, and seismic studies.



**Vibroseis unit for 3D seismic characterization survey**

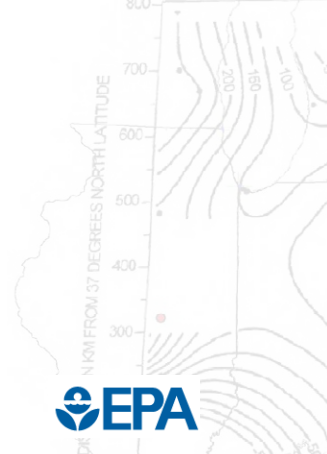
## Developing CarbonSAFE geologic CO<sub>2</sub> storage complexes

Partnering with ISGS and others, Projeo is working on multiple DOE-NETL Carbon Storage Assurance Facility Enterprise (CarbonSAFE) initiatives to ensure safe, secure, efficient, and cost-effective CO<sub>2</sub> containment in diverse geologic formations throughout the Illinois Basin—including the Illinois East Sub-Basin, the Macon County project, the Wabash Valley Resources project, and the Illinois Storage Corridor project.

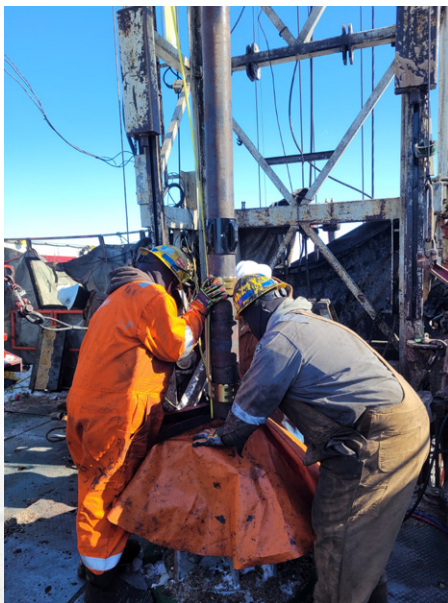
Assessments have identified sites and established feasibility of their capability to store more than 50 million metric tons of CO<sub>2</sub> from industrial sources that can be used for commercial-scale CO<sub>2</sub> geological storage as permitted U.S. EPA Class VI CO<sub>2</sub> injection well sites.

The initiatives have demonstrated storage (CCS) technology at real-world, commercial-scale facilities for ammonia production, ethanol production, and coal-fired power generation. Ongoing efforts support NETL's mission to develop and advance CCS technologies for widespread commercial deployment in the 2025 to 2035 timeframe.

Projeo is also playing a leading role in helping develop early commercial projects in the Illinois Basin building on their local CCS experience by providing operations, management, and technical support. Currently, Projeo is expanding into other markets, bringing their successful project delivery background to help facilitate the energy transition throughout the United States.



<https://www.epa.gov/uic/archer-daniels-midland-ccs1-class-vi-permit-documents>



## Assessing feasibility of subsurface heat storage to generate flexible electricity

A project on geothermal energy furthered the understanding of the feasibility of utilizing abandoned oil and gas wells as geothermal heat storage wells. This DOE-funded project addressed the challenges of energy supply intermittency by storing energy from renewable resources in the subsurface to harvest it at a later time during at-peak energy demand, enhancing grid resilience and reliability. Members of the Projeo team worked through a prestigious Small Business Technology Transfer (STTR) grant and participated in the Energy I-Corps training program to work towards the advancement and commercialization of this novel approach.

In this project, Projeo and its research partners assessed the heat storage and hydrogeological characteristics of subsurface reservoirs to determine the temperature profile and used the baseline data for modeling and simulation to determine other well locations.

Installing casing and fiber optic monitoring cable in observation/test well

Well cementing operation for observation/test well

