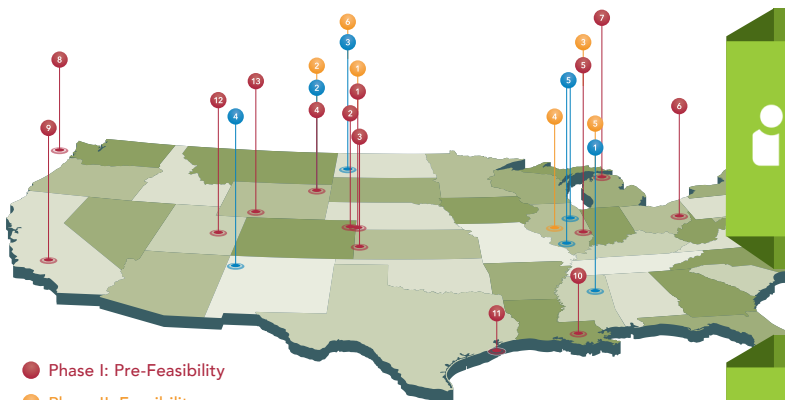




# Carbon Storage Assurance Facility Enterprise (CarbonSAFE)

The CarbonSAFE Initiative builds off the work done by the Regional Carbon Sequestration Partnerships to fund and develop projects focused on ensuring carbon storage complexes will be ready for integrated Carbon Capture, Utilization, and Storage (CCUS) system deployment in the 2025-2030 timeframe.

CarbonSAFE Illinois Macon County



● Phase I: Pre-Feasibility

● Phase II: Feasibility

● Phase III: Site Characterization and Permitting

## PROGRAM OBJECTIVES

- ✓ Address the R&D knowledge gaps and develop the technologies needed to nationally deploy commercial scale (50+ million metric ton) CO<sub>2</sub> storage.
- ✓ Understand the development of a CCUS storage complex from the feasibility study through the point of injection.
- ✓ Improve understanding of commercial-scale project screening, site selection, geologic characterization, modeling, and monitoring.
- ✓ Address both the technical and non-technical challenges associated characterization, permitting, and monitoring of a geologic storage complex.



### Phase I: Integrated CCS Pre-Feasibility 12-18-month initiative

- Formation of a team; development of a feasibility plan; and high-level technical evaluation of the sub-basin and potential CO<sub>2</sub> sources
- Thirteen projects funded



### Phase II: Storage Complex Feasibility 18-24-month initiative

- Data collection; geologic analysis; analysis of contractual and regulatory requirements; subsurface modeling; risk assessment; evaluate monitoring requirements; and public outreach
- Six projects funded



### Phase III: Site Characterization and Permitting <3-year initiative

- Detailed site characterization; submit UIC Class VI permit to construct; CO<sub>2</sub> Capture Assessment; NEPA approvals
- Five projects funded
- Phase III.5: NEPA and FEED Studies Only - for applicants who have completed most Phase III activities independent of DOE



### Phase IV: Construction <2.5-year initiative

- Obtain UIC Class VI permit to inject; drill and complete injection and monitoring wells; complete risk and mitigation plans
- Subject to funding



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