

PHASE III CARBONSAFE LAUNCHES WITH FIVE PROJECTS TO ADVANCE CARBON STORAGE

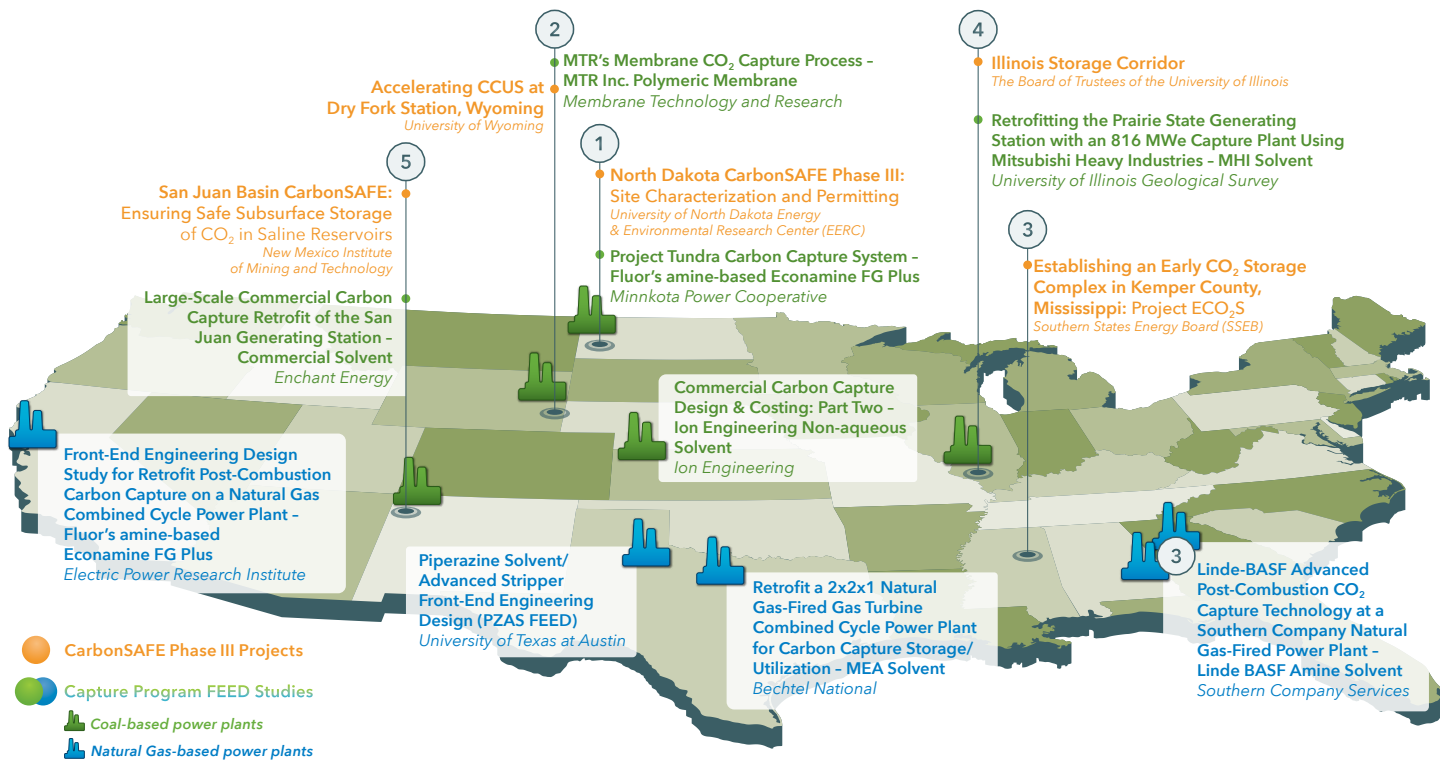
DOE's flagship program demonstrates how to identify, characterize, and permit commercial-scale carbon storage sites.

ADVANCING TOWARD COMMERCIALIZATION OF CARBON CAPTURE AND STORAGE

The Carbon Storage Assurance Facility Enterprise (CarbonSAFE) Initiative addresses key gaps on the critical path toward carbon capture and storage (CCS) deployment. The CarbonSAFE Initiative is taking a phased approach: (I) Integrated CCS Prefeasibility; (II) Storage Complex Feasibility; (III) Site Characterization, Permitting, and Carbon Capture Assessment; and (IV) Injection Site Construction and Obtain Authorization to Inject.

CarbonSAFE Phase III projects commenced in 2020 and include the **acquisition, analysis, and development of information** to fully characterize storage complexes at **six locations across the nation** to demonstrate storage resources for commercial volumes of CO₂. These projects will provide lessons learned by doing, information on the costs of early mover projects, data on project risks, practice in adhering to regulations, and a basis for public acceptance.

LINKING STATE-OF-THE-ART STORAGE TECHNOLOGIES AND CAPTURE TECHNOLOGIES WITH INTEGRATED PROJECTS



Five CarbonSAFE Phase III projects are aligned with five front-end engineering and design (FEED) studies awarded by DOE's Carbon Capture Program for carbon capture systems on coal and natural gas power plants. These integrated studies show the ability to **supply 50+ million metric tons of CO₂** for storage per project and evaluate pipeline routes for transport of the CO₂ to the proposed storage complex.

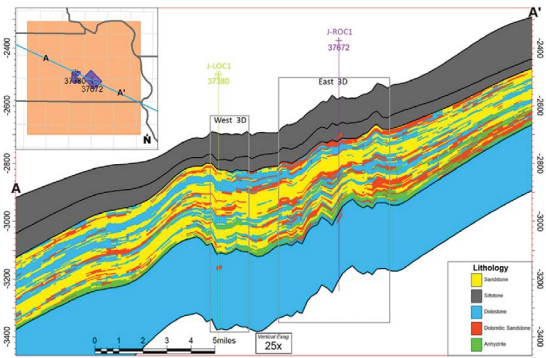
PHASE III CHARACTERIZATION ACTIVITIES

Phase III projects have **completed the drilling of stratigraphic test wells, conducted surface seismic reflection surveys, and updated sub-surface models** including:

- 3D seismic surveys
- Injection tests
- 2D seismic surveys
- Core and fluid sampling and analysis
- Microgravity surveys
- Geologic and Injection models

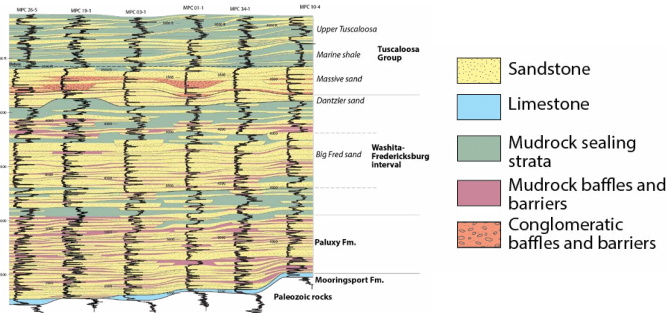
This work is providing the information needed to prepare and submit an Underground Injection Control Class VI construction permit for each proposed injection well at the site(s).

Acquired 25 mi of 2D and 18.7 mi² of 3D Seismic Data to Date (North Dakota CarbonSAFE Phase III)

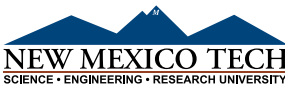


Stratigraphic Cross Section of Kemper County Carbon Storage Complex

Lithofacies Distribution of Broom Creek Formation (North Dakota CarbonSAFE Phase III)



LEAD PARTNERS



Illinois State Geological Survey



FUNDING OPPORTUNITY ANNOUNCEMENT #: DE-FOA-1999

PROJECT BUDGET

TOTAL FUNDING



- DOE\$85,858,263
- PERFORMER.....\$30,310,878

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FECM RDD&D PRIORITIES

INVEST IN THOUGHTFUL TRANSITION STRATEGIES

DEMONSTRATE AND DEPLOY POINT-SOURCE CARBON CAPTURE