

Carbon Storage Projects by State

State	Performer	Congressional District	Technology Area
Alabama			
Site Characterization for CO ₂ Storage from Coal-Fired Power Facilities in the Black Warrior Basin of Alabama	University of Alabama	AL07	Recovery Act Site Characterization Projects
California			
West Coast Regional Carbon Sequestration Partnership – Phase II	California Energy Commission	CA06	Infrastructure (Regional Carbon Sequestration Partnerships)
An Advanced Joint Inversion System for CO ₂ Storage Modeling with Large Data Sets for Characterization and Real-Time Monitoring - Enhancing Storage Performance and Reducing Failure Risks Under Uncertainties	Leland Stanford Junior University	CA14	Geologic Storage Technologies and Simulation and Risk Assessment
Advanced Technologies for Monitoring CO ₂ Saturation and Pore Pressure in Geologic Formations: Linking the Chemical and Physical Effects to Elastic and Transport Properties	Stanford University	CA14	Monitoring, Verification, Accounting, and Assessment
Distributed Fiber Optic Arrays: Integrated Temperature and Seismic Sensing for Detection of CO ₂ Flow, Leakage, and Subsurface Distribution	Electric Power Research Institute	CA14	Monitoring, Verification, Accounting, and Assessment
Characterization of Pliocene and Miocene Formations in the Wilmington Graben, Offshore Los Angeles, for Large Scale Geologic Storage of CO ₂	Terralog Technologies	CA32	Recovery Act Site Characterization Projects
Development of Improved Caprock Integrity Analysis and Risk Assessment Techniques	Terralog Technologies	CA32	Geologic Storage Technologies and Simulation and Risk Assessment
Development and Test of a 1,000 Level 3C Fiber Optic Borehole Seismic Receiver Array Applied to Carbon Sequestration	Paulsson Inc.	CA27	Geologic Storage Technologies and Simulation and Risk Assessment
Real-time In-situ CO ₂ Monitoring (RICO ₂ M) Network for Sensitive Subsurface Areas in CCS	Intelligent Optical Systems Inc.	CA36	Monitoring, Verification, Accounting, and Assessment
Colorado			
Simulation of Coupled Processes of Flow, Transport and Storage of CO ₂ in Saline Aquifers	Colorado School of Mines	CO07	Geologic Storage Technologies and Simulation and Risk Assessment
Validation of Models Simulating Capillary and Dissolution Trapping during Injection and Post-Injection of CO ₂ in Heterogeneous G	Colorado School of Mines	CO07	Geologic Storage Technologies and Simulation and Risk Assessment
Connecticut			
Integrated Experimental and Modeling Studies of Mineral Carbonation for Permanent CS in Mafic/Ultramafic Rocks	Yale University	CT03	Geologic Storage Technologies and Simulation and Risk Assessment
Florida			
Combining Space Geodesy, Seismology, and Geochemistry for Monitoring, Verification and Accounting of CO ₂ in Sequestration Sites	University of Miami	FL20	Monitoring, Verification, Accounting, and Assessment
Space Geodesy and Geochemistry Applied to the Monitoring, Verification of Carbon Capture and Storage	University of Miami	FL20	Monitoring, Verification, Accounting, and Assessment
Georgia			
Southeast Regional Carbon Sequestration Partnership – Phase II and Phase III	Southern States Energy Board	GA07	Infrastructure (Regional Carbon Sequestration Partnerships)
The Southeast Regional CO ₂ Sequestration Technology Training Program	Southern States Energy Board	GA07	Recovery Act Regional Technology Training Centers

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Illinois

Risk Assessment and Monitoring of Stored CO ₂ in Organic Rocks Under Non-Equilibrium Conditions	Southern Illinois University	IL12	Geologic Storage Technologies and Simulation and Risk Assessment
Management of Water from CCS	Argonne National Laboratory	IL13	Geologic Storage Technologies and Simulation and Risk Assessment
Development and Implementation of the Midwest Geological Sequestration Consortium Sequestration Training and Education Program (STEP)	University of Illinois	IL13	Recovery Act Regional Technology Training Centers
An Evaluation of the Carbon Sequestration Potential of the Cambro-Ordovician Strata of the Illinois and Michigan Basins	Illinois State Geological Survey	IL15	Recovery Act Site Characterization Projects
Assessing Reservoir Depositional Environments to Develop and Quantify Improvements in CO ₂ Storage Efficiency: A Reservoir Simulation Approach	Illinois State Geological Survey	IL15	Geologic Storage Technologies and Simulation and Risk Assessment
An Assessment of Geological Carbon Sequestration Options in the Illinois Basin – Phase II and Phase III	Illinois State Geological Survey	IL15	Infrastructure (Regional Carbon Sequestration Partnerships)

Indiana

Greenhouse Gas Laser Imaging Tomography Experiment (Green LITE)	ITT Space Systems LLC	IN03	Monitoring, Verification, Accounting, and Assessment
Reducing Uncertainties in Model Predictions Via History Matching of CO ₂ Migration/Reactive Transport Modeling (Sleipner)	Indiana University	IN09	Geologic Storage Technologies and Simulation and Risk Assessment

Kansas

Modeling CO ₂ Sequestration in the Ozark Plateau Aquifer System	University of Kansas Center for Research	KS02	Recovery Act Site Characterization Projects
Prototyping and testing a new volumetric curvature tool for modeling reservoir compartments and leakage pathways in the Arbuckle saline aquifer: Reducing uncertainty in CO ₂ storage and permanence	University of Kansas Center for Research	KS02	Geologic Storage Technologies and Simulation and Risk Assessment
Small Scale Field Test Demonstrating CO ₂ Sequestration in Arbuckle Saline Aquifer and by CO ₂ -EOR at Wellington Field, Sumner Co.	University of Kansas Center for Research	KS02	Infrastructure (Regional Carbon Sequestration Partnerships)

Louisiana

Statistical Analysis of CO ₂ Exposed Wells to Predict Long Term Leakage through the Development of an Integrated Neural-Genetic Algorithm	University of Louisiana at Lafayette	LA03	Geologic Storage Technologies and Simulation and Risk Assessment
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Massachusetts

Enhanced Simulation Tools to Improve Predictions and Performance of Geologic Storage: Coupled Modeling of Fault Poromechanics, and High-Resolution Simulation of CO ₂ Migration and Trapping	Massachusetts Institute of Technology	MA08	Geologic Storage Technologies and Simulation and Risk Assessment
Near-Surface Leakage Monitoring for the Verification And Accounting of Geologic Carbon Sequestration Using a Field Ready 14c Isotopic Analyzer	Planetary Emissions Management Inc.	MA08	Monitoring, Verification, Accounting, and Assessment

Montana

Advanced CO ₂ Leakage Mitigation using Engineered Biomineralization Sealing Technologies	Montana State University	MT01	Geologic Storage Technologies and Simulation and Risk Assessment
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Field Test and Evaluation of Engineered Biomineralization Technology for Sealing Existing Wells	Montana State University	MT01	Geologic Storage Technologies and Simulation and Risk Assessment
Prototype Development and Testing Advanced CO ₂ Leakage Mitigation Using Engineered Biomineralization Sealing Technologies	Montana State University	MT01	Geologic Storage Technologies and Simulation and Risk Assessment
Development and Deployment of a Compact Eye-Safe Scanning Differential Absorption Lidar (DIAL) for Spatial Mapping of Carbon Dioxide for Monitoring/Verification/Accounting at Geologic Carbon Sequestration Sites	Montana State University	MT01	Monitoring, Verification, Accounting, and Assessment
Big Sky Regional Carbon Sequestration Partnership – Phase II and Phase III	Montana State University	MT01	Infrastructure (Regional Carbon Sequestration Partnerships)

Nevada

Deep Controlled Source Electromagnetic Sensing: A Cost Effective, Long-term Tool for Sequestration Monitoring	Multi Phase Technologies LLC	NV02	Monitoring, Verification, Accounting, and Assessment
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New Jersey

Utilization of CO ₂ in High Performance Building and Infrastructure Products	Solidia Technologies Inc.	NJ06	Carbon Use and Reuse
Model Complexity and Choice of Model Approaches for Practical Simulations of CO ₂ Injection, Migration, Leakage, and Long-term Fate	Princeton University	NJ12	Geologic Storage Technologies and Simulation and Risk Assessment

New Mexico

Wellbore Seal Repair Using Nanocomposite Materials	University of New Mexico	NM01	Geologic Storage Technologies and Simulation and Risk Assessment
CO ₂ at the Interface: Nature and Dynamics of the Reservoir/Caprock Contact and Implications for Carbon Storage Performance	New Mexico Institute of Mining and Technology	NM02	Geologic Storage Technologies and Simulation and Risk Assessment
Southwest Regional Carbon Sequestration Partnership – Phase II and Phase III	New Mexico Institute of Mining and Technology	NM02	Infrastructure (Regional Carbon Sequestration Partnerships)
Southwestern United States Carbon Sequestration Training Center	New Mexico Institute of Mining and Technology	NM02	Recovery Act Regional Technology Training Centers

New York

Carbon Dioxide Sealing Capacity: Textural or Compositional Controls?	Brooklyn College	NY10	Geologic Storage Technologies and Simulation and Risk Assessment
Radiocarbon as a Reactive Tracer for Tracking Permanent CO ₂ Storage in Basaltic Rocks	Columbia University	NY15	Geologic Storage Technologies and Simulation and Risk Assessment
Tagging Carbon Dioxide to Enable Quantitative Inventories of Geological Carbon Storage	Columbia University	NY15	Monitoring, Verification, Accounting, and Assessment

North Carolina

Conversion of CO ₂ into Commercial Materials Using Carbon Feedstocks	Research Triangle Institute	NC04	Carbon Use and Reuse
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North Dakota

Optimizing and Quantifying CO ₂ Storage Resource in Saline Formations and Hydrocarbon Reservoirs	University of North Dakota Energy & Environmental Research Center	ND01	Geologic Storage Technologies and Simulation and Risk Assessment
Scalable, Automated, Semipermanent Seismic Method for Detecting CO ₂ Plume Extent During Geological CO ₂ Injection	University of North Dakota Energy & Environmental Research Center	ND01	Monitoring, Verification, Accounting, and Assessment

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Plains CO ₂ Reduction Partnership – Phase II and Phase III	University of North Dakota Energy & Environmental Research Center	ND01	Infrastructure (Regional Carbon Sequestration Partnerships)
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Ohio

Quantification of Wellbore Leakage Risk Using Non-Destructive Borehole Logging Techniques	Schlumberger Carbon Services	OH12	Monitoring, Verification, Accounting, and Assessment
Simplified Predictive Models for CO ₂ Sequestration Performance Assessment	Battelle Memorial Institute	OH15	Geologic Storage Technologies and Simulation and Risk Assessment
Systematic Assessment of Wellbore Integrity for Geologic Carbon Storage Projects using Regulatory and Industry Information	Battelle Memorial Institute	OH15	Geologic Storage Technologies and Simulation and Risk Assessment
Midwest Regional Carbon Sequestration Partnership – Phase II and Phase III	Battelle Memorial Institute	OH15	Infrastructure (Regional Carbon Sequestration Partnerships)

Oklahoma

Surface and Airborne Monitoring Technology for Detecting Geologic Leakage in a CO ₂ -Enhanced Oil Recovery Pilot, Anadarko Basin, Texas	Oklahoma State University	OK03	Monitoring, Verification, Accounting, and Assessment
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Pennsylvania

Sequestration of Carbon Dioxide Gas in Coal Seams	CONSOL Energy Inc.	PA18	Infrastructure (Regional Carbon Sequestration Partnerships)
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South Carolina

Proof-of-Feasibility of Using Well bore Deformation as a Diagnostic Tool to Improve CO ₂ Sequestration	Clemson University	SC03	Geologic Storage Technologies and Simulation and Risk Assessment
Geological Characterization of the South Georgia Rift Basin for Source Proximal CO ₂ Storage	South Carolina Research Institute	SC06	Recovery Act Site Characterization Projects

Tennessee

Monitoring of Geological CO ₂ Sequestration Using Isotopes and PF Tracers	Oak Ridge National Laboratory	TN03	Monitoring, Verification, Accounting, and Assessment
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Texas

Characterization of the Triassic Newark Basin of New York & New Jersey for Geologic Storage of Carbon Dioxide	Sandia Technologies LLC	TX02	Recovery Act Site Characterization Projects
South Louisiana Enhanced Oil Recovery/Sequestration Demonstration Project	Blackhorse Energy LLC	TX07	Infrastructure (Regional Carbon Sequestration Partnerships)
Experimental Design Applications for Modeling and Assessing Carbon Dioxide Sequestration in Saline Aquifers	Fusion Petroleum Technologies	TX08	Geologic Storage Technologies and Simulation and Risk Assessment
Gulf of Mexico Miocene CO ₂ Site Characterization Mega Transect	University of Texas at Austin – Bureau of Economic Geology	TX21	Recovery Act Site Characterization Projects
Developing a Comprehensive Risk Assessment Framework for Geological Storage of CO ₂	University of Texas at Austin - Bureau of Economic Geology	TX21	Geologic Storage Technologies and Simulation and Risk Assessment
Enhanced Analytical Simulation Tool for CO ₂ Storage Capacity Estimation and Uncertainty Quantification	University of Texas at Austin - Bureau of Economic Geology	TX21	Geologic Storage Technologies and Simulation and Risk Assessment
Inexpensive Monitoring and Uncertainty Assessment of CO ₂ Plume Migration Using Injection Data	University of Texas at Austin	TX21	Geologic Storage Technologies and Simulation and Risk Assessment
Influence of Local Capillary Trapping on Containment System Effectiveness	University of Texas at Austin	TX21	Geologic Storage Technologies and Simulation and Risk Assessment
Novel Materials for Robust Repair of Leaky Wellbores in CO ₂ Storage Formations	University of Texas at Austin - Bureau of Economic Geology	TX21	Geologic Storage Technologies and Simulation and Risk Assessment
Pressure-Based Inversion and Data Assimilation System (PIADS) for CO ₂ Leakage Detection	University of Texas at Austin - Bureau of Economic Geology	TX21	Monitoring, Verification, Accounting, and Assessment
Alliance for Sequestration Training, Outreach, Research and Education (STORE)	University of Texas at Austin.	TX21	Recovery Act Regional Technology Training Centers

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Carbon Capture and Storage in the Permian Basin, a Regional Technology Transfer and Training Program	Petroleum Technology Transfer Council - Texas Region	TX35	Recovery Act Regional Technology Training Centers
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Utah

Characterization of Most Promising Sequestration Formations in the Rocky Mountain Range	University of Utah	UT02	Recovery Act Site Characterization Projects
Reactive Transport Models with Geomechanics to Mitigate Risks of CO ₂ Utilization and Storage	University of Utah	UT02	Geologic Storage Technologies and Simulation and Risk Assessment

Virginia

Commercial Scale CO ₂ Injection and Optimization of Storage Capacity in the Southeastern United States	Advanced Resources International	VA08	Geologic Storage Technologies and Simulation and Risk Assessment
The Coal-Seq III Consortium: Advancing the Science of CO ₂ Sequestration in Coal Seam and Gas Shale Reservoirs	Advanced Resources International	VA08	Geologic Storage Technologies and Simulation and Risk Assessment
Injecting Carbon Dioxide into Unconventional Reservoirs in the Central Appalachian Basin	Virginia Polytechnic Institute	VA09	Infrastructure (Regional Carbon Sequestration Partnerships)

Washington

Carbon Capture and Storage Training	Environmental Outreach and Stewardship (EOS) Alliance	WA07	Recovery Act Regional Technology Training Centers
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West Virginia

Actualistic and Geomechanical Modeling of Reservoir Rock, CO ₂ and Formation Fluid Interaction, Citronelle Field, Alabama	West Virginia University	WV01	Geologic Storage Technologies and Simulation and Risk Assessment
In Situ MVA of CO ₂ Sequestration Using Smart Field Technology	West Virginia University	WV01	Monitoring, Verification, Accounting, and Assessment

Wyoming

Site Characterization of the Highest-Priority Geologic Formations for CO ₂ Storage in Wyoming	University of Wyoming	WY01	Recovery Act Site Characterization Projects
Maximization of permanent trapping of CO ₂ in the highest-porosity formations of the Rock Springs Uplift	University of Wyoming	WY01	Geologic Storage Technologies and Simulation and Risk Assessment
Optimal Model Complexity in Geological Carbon Sequestration: A Response Surface Uncertainty Analysis	University of Wyoming	WY01	Geologic Storage Technologies and Simulation and Risk Assessment
Optimizing Accuracy of Determinations of CO ₂ Storage Capacity and Permanence, and Designing More Efficient CO ₂ Storage Operations: An Example from the Rock Springs Uplift, Wyoming	University of Wyoming	WY01	Geologic Storage Technologies and Simulation and Risk Assessment
Measurements of ²²² Rn, ²²⁰ Rn, and CO ₂ Emissions in Natural CO ₂ Fields in Wyoming	University of Wyoming	WY01	Monitoring, Verification, Accounting, and Assessment
Wyoming CCS Technology Institute: Workforce Training, Technology Transfer, and Information Clearinghouse	University of Wyoming	WY01	Recovery Act Regional Technology Training Centers

Canada

Beneficial use of Carbon Dioxide in Precast Concrete Production	McGill University	NA	Carbon Use and Reuse
Weyburn Carbon Dioxide Sequestration Project	Natural Resources Canada - CanmetEnergy	NA	Infrastructure (Regional Carbon Sequestration Partnerships)