

## Recovery Act Site Characterization Projects

The Carbon Storage Program selected nine projects in 2009 whose purpose is to accelerate the comprehensive identification and characterization of potential large-volume geologic formations in onshore and offshore settings in the United States. These projects augment characterization efforts and refinement of geologic storage resource potential conducted by the RCSPs. A summary of the nine projects is provided in the table below. These efforts include drilling stratigraphic wells to collect whole and sidewall core data on confining and injection zones, conducting comprehensive logging suites and formation evaluation projects, and analyzing the chemistry of formation rocks and fluids. The characterization efforts also include the acquisition of two-dimensional and/or three-dimensional seismic surveys that integrate rock property data acquired from new wellbores with other existing data to validate seismic responses. The integration of these data is providing a better understanding of the subsurface properties that will be necessary to develop dynamic models to account for CO<sub>2</sub> migration. Additionally, all of the information gathered from these projects is being incorporated into NATCARB to improve future CO<sub>2</sub> storage resource estimates in the United States.

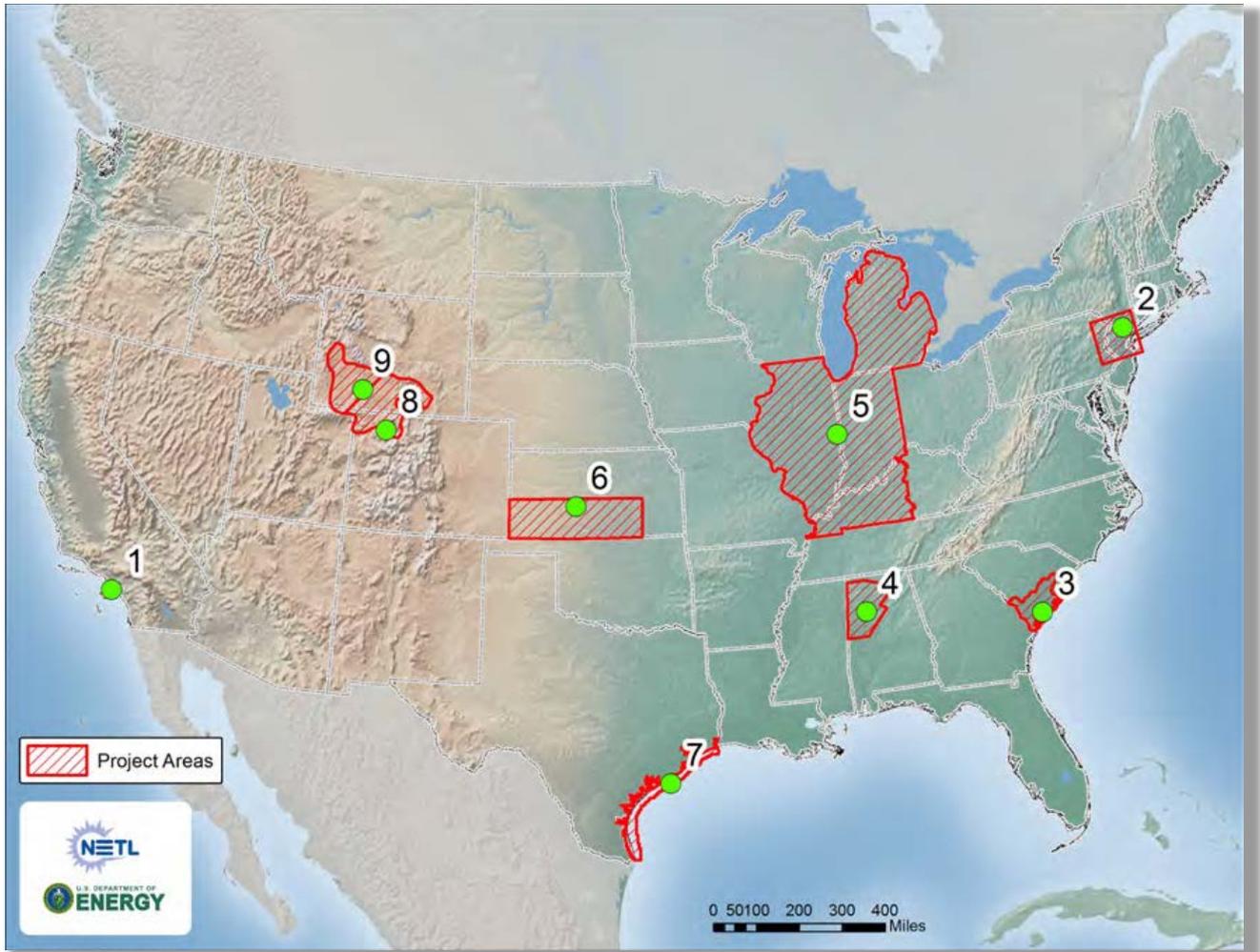
The site characterization projects focus on value-added reservoirs that can support the deployment of CCS technologies by industry in onshore and offshore settings. These efforts will include refinements in the technical methodology used to assess regionally important formations. For example, an offshore study to investigate the potential for permanent underground storage of CO<sub>2</sub> in geologic formations was launched by the University of Texas at Austin via the Bureau of Economic Geology in the United States. Another outer continental shelf study underway in the Los Angeles Basin presents a unique opportunity for large-scale offshore geologic storage of CO<sub>2</sub>. This research project has the objective to characterize Pliocene and Miocene sediments within the Wilmington Graben (located offshore Los Angeles, CA) for high-volume CO<sub>2</sub> storage opportunities.

The projects led by the University of Wyoming, the University of Alabama, and the University of Utah were completed in 2013. More information about NETL's site characterization efforts is available at the following address: [http://www.netl.doe.gov/technologies/carbon\\_seq/infrastructure/geologicsitechar.html](http://www.netl.doe.gov/technologies/carbon_seq/infrastructure/geologicsitechar.html)

**Recovery Act Site Characterization Project details. The "Key" reference refers to the locations listed on the map in figure below.**

Key	Participant	Project Title	Characterization Activities
1	GeoMechanics Technologies	Characterization of the Pliocene and Miocene Formations in the Wilmington Graben, Offshore Los Angeles, for Large Scale Geologic Storage of CO <sub>2</sub>	Off-shore Pliocene and Miocene-age formations, Los Angeles Basin, Wilmington Graben
2	Sandia Technologies	Characterization of the Triassic Newark Basin of New York & New Jersey for Geologic Storage of Carbon Dioxide	Triassic to Cambrian-age formations and diabase sills within the Newark Rift Basin
3	South Carolina Research Foundation	Geologic Characterization of the South Georgia Rift Basin for Source Proximal CO <sub>2</sub> Storage	Jurassic and Triassic-age formations of the Mesozoic South Georgia Rift Basin
4	University of Alabama	Site Characterization for CO <sub>2</sub> Storage from Coal-fired Power Facilities in the Black Warrior Basin of Alabama	Stacked Cambrian through Pennsylvanian saline formations, Black Warrior Basin, Alabama
5	University of Illinois	An Evaluation of the Carbon Sequestration Potential of the Cambro-Ordovician Strata of the Illinois and Michigan Basins	Cambrian-Ordovician-age Knox Supergroup and St. Peter Sandstone, Illinois and Michigan Basins
6	University of Kansas	Modeling CO <sub>2</sub> Sequestration in a Saline Aquifer and Depleted Oil Reservoir to Evaluate Regional CO <sub>2</sub> Sequestration Potential of Ozark Plateau Aquifer System, South-Central Kansas	Mississippian-age Chert Formation, Cambrian-Ordovician-age Arbuckle Group, Ozark Plateau
7	University of Texas at Austin	Gulf of Mexico Miocene CO <sub>2</sub> Site Characterization Mega Transect	Near-shore Miocene-age formations, State of Texas Submerged Lands
8	University of Utah	Characterization of the Most Promising Sequestration Formations in the Rocky Mountain Region	Cretaceous-age Dakota Sandstone, Jurassic-age Entrada and Navajo Sandstones, and the Pennsylvanian-age Weber Sandstone
9	University of Wyoming	Site Characterization of the Highest-Priority Geologic Formations for CO <sub>2</sub> Storage in Wyoming	Weber, Tensleep, and Madison formations of the Rock Springs Uplift and Moxa Arch Deep Saline Reservoirs

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*Map depicting Recovery Act Site Characterization Project locations and areas of study*