

PROJECT facts

U.S. DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY
NATIONAL ENERGY TECHNOLOGY LABORATORY



SOUTHWEST REGIONAL PARTNERSHIP FOR CARBON SEQUESTRATION

Background

The U.S. Department of Energy has designated seven partnerships of state agencies, universities, and private companies that will form the core of a nationwide network that will help determine the best approaches for capturing and permanently storing gases that can contribute to global climate change. All together, the partnerships include more than 244 organizations, spanning 40 states, three Indian nations, and four Canadian provinces.

The seven partnerships will develop the framework needed to validate and potentially deploy carbon sequestration technologies. They will evaluate and determine which of the numerous sequestration approaches that have emerged in the last few years are best suited for their specific regions of the country. They will also begin studying possible regulations and infrastructure requirements that would be needed should climate science indicate that sequestration be deployed on a wide scale in the future.

CONTACTS

Sean Plasynski

Sequestration Technology Manager
National Energy Technology
Laboratory
626 Cochrans Mill Road
P.O. Box 10940
Pittsburgh, PA 15236
412-386-4867
sean.plasynski@netl.doe.gov

David Hyman

Project Manager
National Energy Technology
Laboratory
626 Cochrans Mill Road
P.O. Box 10940
Pittsburgh, PA 15236
412-386-6572
david.hyman@netl.doe.gov

BUSINESS CONTACT

Alan A Reisinger

505-835-5948
505-835-6031 fax
alan@prrc.nmt.edu

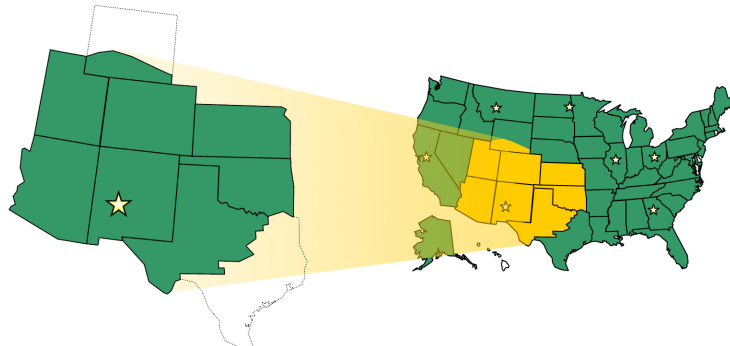
TECHNICAL CONTACT

Brian McPherson

505-835-5834
505-835-6031 fax
brian@nmt.edu

Description

The Southwest Regional Partnership for Carbon Sequestration (Southwest), led by the New Mexico Institute of Mining and Technology, Socorro, NM, will disseminate existing regulatory/permitting requirements, assess the most appropriate sequestration strategies, and evaluate and rank sequestration technologies for CO₂ capture and storage in the Southwest region, which includes Arizona, Colorado, Kansas, New Mexico, Oklahoma, Texas, Utah, and Wyoming. In the Southwest Region, over 95% of CO₂ emissions result from fossil fuel combustion, and about half of these emissions are from power plants. Geologic storage options include coal beds, natural gas and CO₂ fields, depleted and marginal oil fields, and deep saline aquifers. One option the partnership will explore is the viability of supplanting the CO₂ currently produced from natural CO₂ reservoirs, used for enhanced oil and natural gas recovery, with anthropogenic power plant CO₂. The presence of CO₂ pipelines may improve the viability of this possibility. Although terrestrial CO₂ sequestration appears to be a viable alternative in several parts of the Southwest Region, low rainfall in some areas may decrease the value of this option.



Southwest Regional Carbon Sequestration Partnership - (Region 4)



BUSINESS OFFICE ADDRESS

New Mexico Institute of Mining and Technology
Petroleum Recovery Research Center
801 Leroy Place
Socorro, NM 87801-4796

PARTNER

University of Texas at Austin

PROJECT DURATION

24 Months

COST

Total Project Value
\$2,265,506

DOE/Non-DOE Share
\$1,770,000 / \$495,506

CUSTOMER SERVICE

1-800-553-7681

WEBSITE

www.netl.doe.gov

A website network will be set up to share information, store data, and help with decision-making and future management of carbon sequestration in the region. Over twenty partners, including the Navajo nation, state geologic surveys, coal, oil and natural gas companies, utilities, technology companies, and universities, make up this partnership.

Primary Project Goal

The goal of this project is to develop a sequestration strategy for the region, subject to the constraints unique to the Southwest, such as water resource availability. The assessment will not only identify the available technologies on which the strategy relies, but will also determine technological gaps.

Objectives

- To prepare a comprehensive assessment of the CO₂ sequestration aspects of the region, including sources, sinks, transport, sequestration options, and existing and future infrastructure requirements.
- To identify and address sequestration implementation issues.
- To initiate public outreach and assess public acceptance of CO₂ sequestration.
- To identify and rank sequestration options for the Southwest region.

Benefits

This project will benefit the U.S. by providing a comprehensive assessment of the sources and potential sinks for CO₂ in the Southwest region. This data can be integrated with the data from other partnerships to provide a data base covering the entire nation. This effort will also provide information to evaluate potential pilot sequestration projects in the Southwest.

PARTNERS

Advanced Resources International

Arizona Geological Survey

Arizona State University

Burlington Resources, San Juan Division

Center for Energy & Economic Development

ChevronTexaco Energy Research and Technology Company

ChevronTexaco Permian Business Unit

Colorado Geological Survey

ConocoPhillips

Dine College, Shiprock Campus
GTI

Intermountain Power Agency

Interstate Oil and Gas Compact Commission (IOGCC)

Kansas Geological Survey

Kinder Morgan CO₂

Los Alamos National Laboratory

Marathon Oil Company

McNeill Technologies

Merchant Consulting

Navajo Nation

Nevada Bureau of Mines & Geology

New Mexico Bureau of Geology

New Mexico Energy, Minerals, and Natural Resources Department

New Mexico Institute of Mining and Technology

New Mexico Oil Conservation Division

New Mexico State University

New Mexico State University, WERC

New Mexico Oil and Gas Association

Oklahoma Gas and Electric

Oklahoma Geological Survey

Oklahoma State University

Oxy Permian Ltd.

PacifiCorp

PNM, Public Service Co. of New Mexico

Sandia National Laboratory

Texas A&M University (Texas A&M)

Texas Bureau of Economic Geology - UT

Tucson Electric Power Company

U.S. Department of Agriculture

University of Oklahoma

University of Utah

Utah ARGC

Utah Division of Air Quality

Utah Energy Office

Utah Geological Survey

Utah State University

Western Governors Association

Wyoming State Geological Survey

Yates Petroleum Corporation