



the **ENERGY** lab

PROJECT FACTS

Carbon Sequestration

Alliance for Sequestration Training, Outreach, Research and Education (STORE)

Background

A need exists to explore further research on technologies that capture and store carbon dioxide (CO₂). Carbon capture and storage (CCS) technologies offer great potential for reducing CO₂ emissions and, in turn, mitigating global climate change without adversely influencing energy use or hindering economic growth.

Deploying these technologies in commercial-scale applications will require a drastically expanded workforce trained in CCS specialties, including geologists, engineers, scientists, and technicians. Training to enhance the existing CCS workforce and to develop new professionals can be accomplished through focused educational initiatives in the CCS technology area. Key educational topics include simulation and risk assessment; monitoring, verification, and accounting (MVA); geology-related analytical tools; methods to interpret geophysical models; methods for designing and completing CO₂ injection wells; and methods for conducting public outreach activities in areas where CCS projects may occur.

The U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL) has selected seven projects to receive more than \$8.4 million in funding to develop regional sequestration technology training centers in the United States. The majority of this funding is provided by the American Recovery and Reinvestment Act (ARRA) of 2009. The seven projects will facilitate the transfer of knowledge and skills required for development, operation, and monitoring of commercial CCS projects. Training activities will focus on the applied engineering and science of CCS for site developers, geologists, scientists, engineers, and technicians to provide a technology transfer platform for CO₂ sequestration activities. The awarded projects will produce a workforce with the skills and competencies in geology, geophysics, geomechanics, geochemistry, and reservoir engineering needed to successfully implement and deploy CCS technologies.

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U.S. DEPARTMENT OF
ENERGY

PROJECT DURATION

Start Date

01/01/2010

End Date

12/31/2012

COST

Total Project Value

\$1,161,828

DOE/Non-DOE Share

\$994,702/\$167,126



Government funding for this project is provided in whole or in part through the American Recovery and Reinvestment Act.

Project Description

NETL, in partnership with the University of Texas at Austin, will develop a regional sequestration technology training center for the Gulf Coast states that will facilitate national and global development and deployment of CCS technology. The training center will accomplish this through technology transfer events, an online training program, webinars, and communication through newsletters, email tech alerts, and a website (www.storeco2now.com). This training will make a vital contribution to the scientific, technical, and institutional knowledge needed to develop commercial CCS projects. By providing educational and training programs necessary to produce a skilled professional CCS workforce, the University of Texas at Austin will help the nation meet the need to capture and store large amounts of CO₂. In addition, the center will promote transfer of regional CCS technology expertise, provide the public, CCS industry and other interested parties with a variety of professional services, and work with all stakeholders to advance CCS from demonstration stage to deployment.

Goals/Objectives

The primary goal of this project is to advance the nation's role in addressing global climate change through the transfer of CO₂ sequestration information by:

- Providing world-class technology transfer, training, and CCS expertise through educational programs and instructional materials.
- Delivering a training and communications program through an established technology transfer network with online capabilities, thus making the educational products globally accessible.
- Developing a self-sustaining CCS training program through an active sponsorship program and appropriately priced user fees.

The expected outcomes of this information transfer project are the improvement of public awareness and understanding regarding global climate change and CO₂ sequestration as well as a skilled workforce in geology, geophysics, geomechanics, geochemistry, and reservoir engineering disciplines that will enhance the development and deployment of CCS technology.

Benefits

The overall benefit of this project is a trained workforce that can accelerate the development and deployment of carbon capture and storage projects.

