

Southwest Regional Partnership for Carbon Sequestration

PUBLIC ABSTRACT

The Southwest Partnership Region includes five full states (Arizona, Colorado, New Mexico, Oklahoma, Utah) and contiguous areas from three adjacent states (west Texas, south Wyoming, and west Kansas). This region is energy rich (net exporter of electricity, coal, oil and gas), it has some of the largest growth rates in the nation (Arizona 40%; Colorado 31%, Utah 30%; 1990 - 2000 census data), and it contains two major CO₂ pipeline networks that presently tap natural subsurface CO₂ reservoirs for enhanced oil recovery (30 million tons/y). The ten largest coal-fired power plants in the region produce 50% (140 million tons CO₂/y) of the total CO₂ from power plant fossil fuel combustion, and power plant emissions are close to half the total CO₂ emissions. Between 1993 and 2000, the DOE metric of carbon emissions equivalent/gross state product for the partnership region declined 22%, largely because of rapid economic growth. This proposal outlines the first phase of achieving a further 18% reduction in carbon intensity by 2012 to attain a target of less than 182 metric tons carbon equivalent/gross state product (\$million).

The Southwest Regional Partnership comprises a large, diverse group of expert organizations and individuals specializing in carbon sequestration science and engineering, as well as public policy and outreach. These partners include 21 state government agencies and universities, the five major electric utility industries, seven oil, gas and coal companies, three federal agencies, the Navajo Nation, several NGOs including the Western Governors Association, and data sharing agreements with four other surrounding states. Cost share commitments from the partners almost match the DOE funds required for this work. Action plans for possible Phase II carbon sequestration pilot tests in the region will be developed, as well as non-technical aspects necessary for developing and carrying out these pilot tests. A priority will be the setting up of a website network to facilitate data storage and information sharing, decision-making and future management of carbon sequestration in the region. The Southwest Partnership's approach includes (1) dissemination of existing regulatory/permitting requirements, (2) assessing and initiating public acceptance of possible sequestration approaches, and (3) evaluation and ranking of the most appropriate sequestration technologies for capture and storage of CO₂ in the Southwest region. The Partnership will also identify potential gaps in monitoring and verification approaches needed to validate long-term storage efforts.

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