

The Plains CO₂ Reduction (PCOR) Partnership Phase II

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The Plains CO₂ Reduction (PCOR) Partnership is one of the Regional CO₂ Sequestration Partnerships (RCSP) established by the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL). Over 40 partners from industry, government, and nongovernment organizations contribute time, resources, and expertise to the PCOR Partnership. The PCOR Partnership covers an area of over 1.3 million square miles in the central interior of North America including nine states and three Canadian provinces. The region contains vast energy, agricultural, forest, and water resources and offers significant opportunities for both geologic and terrestrial sequestration.

Phase I PCOR Partnership CO₂ source and sink data were housed in the PCOR Partnership Decision Support System (DSS), an interactive, Web-based geographic information system (GIS) designed to facilitate CO₂ sequestration scenario development. Based on the results of Phase I, four field validation tests were designed to demonstrate the technical and economic feasibility of the most promising long-term sequestration options in the region.

Three geologic field validation tests and one terrestrial test will be conducted over a 4-year time frame during Phase II. An EOR project in the Williston Basin will demonstrate the potential to use CO₂ in a tertiary oil recovery operation at depths far greater than have been demonstrated previously. An additional EOR operation will employ a mixture of CO₂ and H₂S in a miscible flood. The potential for ECBM in Williston Basin lignite will also be investigated. A terrestrial field validation test will determine the feasibility of developing carbon offsets from alternate management of wetlands.

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