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Abstract Submission

**THE PLAINS CO₂ REDUCTION (PCOR) PARTNERSHIP: ACTIVITIES
SHAPING THE FUTURE OF CO₂ MANAGEMENT**

Topic: Global Climate Change: Science, Sequestration, and Utilization

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ABSTRACT

The Plains CO₂ Reduction (PCOR) Partnership was established by the U.S. Department of Energy (DOE) National Energy Technology Laboratory (NETL) as one of the seven Regional CO₂ Sequestration Partnerships (RCSP). The PCOR Partnership is managed by the Energy & Environmental Research Center (EERC) at the University of North Dakota. Over 60 partners from industry, government, and nongovernment organizations contribute time, resources, and expertise to the PCOR Partnership. The PCOR Partnership covers an area of nearly 1.4 million square miles in the central interior of North America, including all or part of nine states and four Canadian provinces. The region contains vast energy, agricultural, forest, and water resources and offers significant opportunities for both geologic and terrestrial sequestration.

Since it is essential to understand the capacities and limitations of each storage opportunity before applying them, Phase I of the PCOR Partnership consisted of identifying and ranking sequestration opportunities. These data were compiled into a decision support system consisting of sources, sinks, separation and transportation options, regulatory and permitting requirements, and environmental benefits and risks. In Phase II (2005–2009), three geologic field validation tests and one terrestrial test were chosen and are now under way. Phase II goals are to perform field validation tests that develop 1) monitoring, mitigation, and verification (MMV) protocols; 2) regional sequestration strategies; 3) regulatory and permitting strategies; 4) environmental benefits and risks; and 5) the information needed to monetize carbon credits from sequestration activities.

Global carbon market trading has been established for some time, in large part because of the response to Kyoto Protocol commitments. With an ever-increasing focus on the potential causal effect of anthropogenic CO₂ in global warming, carbon offset market trading is becoming more important in the United States. The recent focus on establishing carbon markets in the United States has been prompted by local and regional initiatives that seek to establish reductions in greenhouse gas emissions and anticipation of likely federal legislation. The PCOR Partnership is working to establish practical technological and market-driven solutions for carbon management.