

PCOR PARTNERSHIP ATLAS

5TH EDITION REVISED



Plains CO₂ Reduction (PCOR) Partnership
Practical, Environmentally Sound CO₂ Sequestration



Plains CO₂ Reduction (PCOR) Partnership

ATLAS

5th EDITION REVISED

2017

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The PCOR Partnership is a group of public and private stakeholders working together to better understand the technical and economic feasibility of storing CO₂ emissions from stationary sources in the central interior of North America. The PCOR Partnership is led by the EERC at the University of North Dakota and is one of seven regional partnerships through the U.S. Department of Energy's Regional Carbon Sequestration Partnership initiative.



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Many changes have been observed in the global climate over the past century. There is growing concern that human activity, such as the use of fossil fuels for energy production, may be affecting the climate. Other significant potential impacts come from deforestation, agricultural practices, and industrial processes.

One of the ways that we can significantly reduce human-made greenhouse gas (GHG) emissions is by using carbon capture and storage (CCS). CCS offers a promising set of technologies through which carbon dioxide (CO₂) can be captured from large stationary sources and permanently stored underground.

Within central North America, the Plains CO₂ Reduction (PCOR) Partnership, led by the Energy & Environmental Research Center (EERC), is investigating long-term CO₂ storage technologies to provide a safe, effective, and efficient means of managing CO₂ emissions. The PCOR Partnership is part of the U.S. Department of Energy (DOE) National Energy Technology Laboratory's (NETL's) Regional Carbon Sequestration Partnership (RCSP) initiative. The goal of this joint government-industry effort is to determine the most suitable technologies, regulations, and infrastructure needed for CCS.

This atlas provides a regional profile of CO₂ sources and potential CO₂ storage locations across the nearly 3.6 million km² of the PCOR Partnership region. In the 13 years since the RCSP initiative was founded, a wealth of new information about CCS has emerged. This fifth edition provides an up-to-date look at PCOR Partnership activities, to include additional regional characterization and updates on full-scale demonstration projects. Additional background information to support CCS is included to give the reader a better picture of how CCS plays a role in addressing concerns about climate change while allowing future energy needs to be met.