

PHASE I

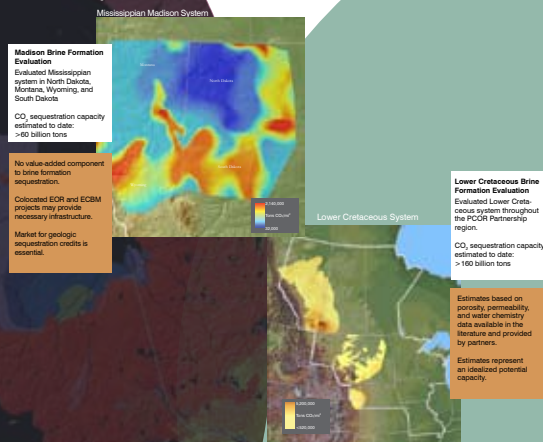
Phase I

- Gauged public understanding
- Developed database for:
 - Sources
 - Sinks
 - Separation and transportation options
 - Regulatory and permitting requirements
 - Environmental benefits and risks
- Identified sequestration opportunities
- Conducted public outreach campaign
- Developed action plan for Phase II (field validation tests)

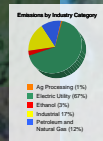
PCOR Partnership Decision Support System



Saline Sequestration



CO₂ Sources



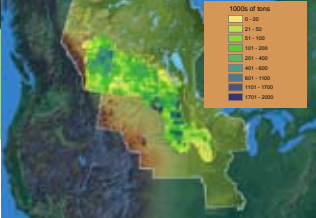
Selected Oilfields



Coal Fields



Wetland Potential

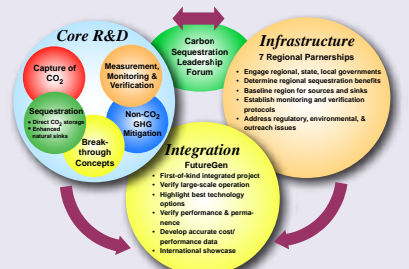
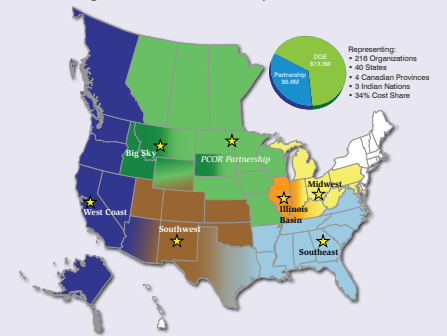


Phase I Products

An array of multimedia products was developed to communicate the Phase I results of the Plains CO₂ Reduction (PCOR) Partnership project. These products include five fact sheets, 21 topical reports, a public and members-only Web site, a 30-minute television documentary, and several posters.



NETL's Regional Carbon Sequestration Partnerships



PHASE II

CO₂-Rich Gas in a Pinnacle Reef Structure – Acid gas (67% CO₂, 33% hydrogen sulfide [H₂S]) from a natural gas processing plant in northern Alberta, Canada, will be injected into an oil-producing zone in an underground pinnacle reef structure. Results will help to determine the best practices to support sequestration in these unique geologic structures as well as further the understanding of the effects of H₂S on tertiary oil recovery and CO₂ sequestration.

CO₂ in a Deep Oil Reservoir – CO₂ will be injected into an oil-bearing zone at great depth (approximately 10,000 feet) in the Beaver Lodge oil field in northwestern North Dakota. The activity will be used to determine the technical viability of CO₂ sequestration and the use of CO₂ to produce additional oil from other deep carbonate zones.

CO₂ in an Unminable Lignite Seam – CO₂ will be injected into an unminable lignite seam in southwestern North Dakota. This field validation test will produce valuable information with regard to efficacy of both CO₂ sequestration and enhanced coalbed methane production.

Wind Energy for CO₂ Compression – An investigation into the use of wind power as a means to offset a portion of the electrical demand of CO₂ compression, thus reducing the CO₂ emissions penalty for CO₂ capture and storage.

CO₂ Management Plan – The EERC is developing a CO₂ management plan for an Excelsior Energy power plant to be built in northeastern Minnesota.

Out of the Air – Into the Soil – A wetland in north-central South Dakota will be managed to demonstrate practices that will improve CO₂ uptake. The results will help to optimize CO₂ storage, monitoring and verification methods, and facilitate the monetization of terrestrial carbon offsets in the region and elsewhere.

Updates to the PCOR Partnership Decision Support System will include increased analytical capabilities and visual effects built over a refined regional characterization database.



Four 30-minute original television documentaries will be produced for broadcast in the PCOR Partnership region in partnership with Prairie Public Television. Program topics will include CO₂ markets, terrestrial sequestration, and geologic sequestration.

