

FY08-LXIII(63)-162

“Plains CO₂ Reduction Partnership – Phase III”

Submitted by: Energy & Environmental Research Center

Principal Investigator: Edward N. Steadman

PARTICIPANTS

<u>Sponsor</u>	<u>Cost Share</u>
Lignite Industry Participants	
Alete	\$ 50,000
Great River Energy	\$ 50,000
Minnkota Power Cooperative	\$ 50,000
MDU	\$ 50,000
North American Coal Corporation	\$ 50,000
Otter Tail Power Company	\$ 50,000
Great Northern Power Development	\$ 50,000
Westmoreland Coal Company	\$ 30,000
BNI Coal	\$ 20,000
Basin Electric (in-kind)	\$ 2,000,000
Encore (in-kind)	\$ 1,050,000
Energy & Utilities Board (in-kind)	\$ 571,048
Spectra Energy Gas Transmissions (in-kind)	\$ 2,477,462
Prairie Public Television	\$ 49,750
NDIC	
Oil & Gas Research Council	\$ 500,000
Lignite Research Council	\$ 2,400,000
U.S. DOE	\$67,000,000
Cash – (in negotiation)	\$ 4,000,000
In-kind – (in negotiation)	\$56,353,840
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Total Cost	\$136,231,052

Project Schedule - 10 Years

Contract Date – 6/23/08

Start Date – 1/1/08

Completion Date – 10/31/17

Project Deliverables

Contract Signed: 2008 (✓)

Progress Reports:

7/31/08 (✓); 10/31/08 (✓); 1/31/09 (✓);
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 7/31/17 (); Final Report: 10/31/17 ()

OBJECTIVE / STATEMENT OF WORK:

Develop and demonstrate technical and economic technologies to store CO₂ in geologic formations in the region. One demonstration project will be conducted in North Dakota and involve injection of CO₂ in a suitable geologic formation for enhanced oil recovery and storage. The second demonstration project involves injection of CO₂-rich acid gas in a deep brine-saturated formation in British Columbia.

STATUS

January 1 – June 30, 2008. A status report of each of the 13 project tasks was provided. The University of Minnesota submitted a proposal, which is currently under review, to work on regional characterization. A review of EPA's draft rules for regulation GHG emission was started and a review of WRI's Guidelines for Carbon Capture and Sequestration was completed. Discussions with potential CO₂ suppliers are underway.

July 1 – September 30, 2008. Verification and refinement of the location of the CO₂ source inventory was conducted. A prototype for the Demonstration Project Reporting System (DPRS) was compiled. A general Phase III fact sheet was completed and approved. Draft comments on the EPA's proposed rules for regulating geologic CO₂ sequestration were prepared. Development of the "Williston Basin Field Validation Test Experimental Design Package" continued.

October 1 – December 31, 2008. Since a Williston Basin site has not yet been selected, the permitting and NEPA compliance task for the Williston Basin has focused on collecting general background material. Comments regarding the EPA's proposed rules for regulating geologic CO₂ sequestration were submitted to EPA. EERC has been supporting Spectra Energy's permitting efforts for the Fort Nelson demonstration. Work continued on the development of a Project Risk Assessment Plan for the Fort Nelson demonstration. Development of the "Williston Basin Field Validation Test Experimental Design Package" continued.