FY-04-L(50)-128

"Plains CO_2 Reduction Partnership (PCORP)"

Contractor: Energy & Environmental Research Center
Principal Investigator: Thomas Erickson

PARTICIPANTS

Sponsor	Cost Share
Basin Electric Power Cooperative	$ 30,000
Great River Energy	$ 30,000
Montana-Dakota Utilities	$ 30,000
OtterTail Power Co.	$ 30,000
Dakota Gasification Co (in-kind)	$ 700,000
Public Prairie Television (in-kind)	$ 66,575
Other (in-kind)	$ 34,950
NDIC	$ 240,000
DOE	$1,586,614
Total Cost	$ 2,748,139

Project Schedule - 24 Months

Contract Date – 2/16/04
Start Date – 2/16/04
Completion Date – 9/30/05

Project Deliverables

Contract Signed: 2/16/04 (✓)
Quarterly Reports:
3/31/04(✓); 6/30/04(✓);
9/30/04(✓); 12/31/04(✓);
3/31/05(✓); 6/30/05(✓);
Final Report: 9/30/05(✓)

OBJECTIVE / STATEMENT OF WORK:

Purpose: Identify cost-effective CO_2 sequestration systems in the Northern Great Plains region, including: 1) Characterize and match sources, sinks & storage options; 2) Identify and address issues for sequestration deployment; 3) Identify promising capture, sequestration and transport options; and 4) Develop public involvement & education mechanisms.

STATUS

Quarterly Report (Jan 04 – Mar 04**) Deployment** activities have focus on utilizing DGC experience and data and the EOR project at Weyburn, Saskatchewan. Communications have been development with the Interstate Oil & Gas Compact Commission. Public Education & Outreach activities have focused on developing background materials. Preliminary collection of data on CO2 sources and sinks, costs for CO2 separation, capture, treatment and compression for pipeline transportation.

Quarterly Report (April 1 – June 30, 2004). Significant progress has been made in all activities. Information gathering for sources and sinks is progressing in close tandem with deployment issues

and final data modeling. Some information is being used to begin the objective evaluation of carbon dioxide sequestration opportunities.

Quarterly Report (July 1 – September 30, 2004). Information gathering for sources and sinks is progressing in tandem with deployment issues and final data modeling.

Quarterly Report (Oct – Dec, 2004). Sequestration background fact sheets have been prepared, focus groups are being defined and organized, sequestration newspaper articles have been prepared and under review. Regional carbon dioxide sources and geological sink data have been identified.

Quarterly Report (January –March, 2005). Information gathering for sources and sinks has progressed in tandem with deployment issues and final data modeling. Objective evaluation of near-term carbon dioxide sequestration opportunities have been selected.

Quarterly Report (April – June, 2005). Phase I efforts of the PCOR Partnership are nearing completion. Most of the sink & source characterization work is complete. Final reports are in progress, including topical reports, fact sheets, and other reports. Future efforts will address economic estimations for regional strategies for proposed demonstrations during Phase II.

Final Report (July 1 – September 30, 2005). Phase I of PCOR identified, quantified, and characterized over 1000 stationary sources of carbon dioxide (CO_2) within its defined region. The potential geological and terrestrial sink capacities for CO_2 in the region were quantified. Geologic sequestration in the region could offset the annual CO_2 emissions (at current source emission rates) in the region for over 400 years. Three geologic sequestration strategies have been identified as potential field validation tests for Phase II. A terrestrial sequestration strategy has also been identified that merits field validation testing in Phase II. An outreach toolkit developed during Phase I consists of fact sheets, background pieces, newspaper articles, a public Web site, and a 30-minute television production on Prairie Public Television.