## Partnership

CO<sub>2</sub>-Rich Gas in a Pinnacle Reef Structure – Acid gas (approximately 70% CO<sub>2</sub>, 30% hydrogen sulfide [H<sub>2</sub>S]) 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 H<sub>2</sub>S on tertiary oil recovery and CO<sub>2</sub> sequestration.

CO<sub>2</sub> in a deep oil reservoir – CO<sub>2</sub> will be injected into an oil-bearing zone at great depth in the Beaver Lodge oil field in northwestern North Dakota. The activity will be used to determine the efficacy of CO<sub>2</sub> sequestration and the use of CO<sub>2</sub> to produce additional oil from other deep carbonate source rocks.

CO<sub>2</sub> in a Deep Oil Reservoir – CO<sub>2</sub> 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 CO<sub>2</sub> sequestration and the use of CO<sub>2</sub> to produce additional oil from other deep carbonate zones.

Wind Energy for CO<sub>2</sub>
Compression – An
investigation into the use of
wind power as a means to
offset a portion of the electrical
demand of CO<sub>2</sub> compression,
thus reducing the CO<sub>2</sub>
emissions penalty for CO<sub>2</sub>
capture and storage.

CO<sub>2</sub> Management
Plan – The EERC
is developing a CO<sub>2</sub>
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 CO<sub>2</sub> uptake. The results will help to optimize CO<sub>2</sub> storage, monitoring and verification methods, and facilitate the monetization of terrestrial carbon offsets in the region and elsewhere.

EXCELSIOR ENERGY

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 CO<sub>2</sub> markets, terrestrial sequestration, and geologic sequestration.





The PCOR Partnership is a collaborative program to assess regional sequestration opportunities. To learn more, contact Edward N. Steadman, Senior Research Advisor, (701) 777-5279, esteadman@undeerc.org.