

# A Regional Vision for Resource Management and Stewardship

## The Energy & Environmental Research Center

(EERC) recognizes that our region is abundant in energy, agriculture, and human resources. Technological integration of our natural resources through scientific research and development is a worthy venture. By integrating these resources, we can help meet the world's growing demands for energy and food through the creation of next-generation energy technologies capable of producing clean power, liquid fuels, and chemical products. The integration of these technological developments and approaches will not only grow the region's vibrant economy but also establish our region as a leader in sustainable energy development.

**Our Vision Becomes** a Model for the **Realization of Energy Opportunities Beyond North** Dakota's Borders

# Oil and G

**Unconventional** e recovery (EOR)

- Bakken Productio Program
- Unconventional results development

### Carbon Capture, Utilization, and Storage

 EOR/sequestration Partnership for CO<sub>2</sub> Capture (PCO<sub>2</sub>C) • Plains CO<sub>2</sub> Reduction (PCOR) Partnership

Water

- Hybrid cooling technology
- Energy–water connection
- Water reclamation

### MONTANA

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- Oil Fields Gas Plants
- Power Plants
- CO<sub>2</sub> Pipelines
- **Prospective Shale Plays**
- **Current Shale Plays**



# A Regional Vision with Global Impact

The EERC is a research, development,

Dakota, the EERC operates like a business.

demonstration, and commercialization facility recognized as one of the world's leading developers of cleaner, more efficient energy technologies as well as environmental technologies to protect and clean our air, water, and soil. <u>A high-tech, nonprofit branch of the</u> University of North

The EERC is leading one of the world's largest programs dedicated to developing and demonstrating technologies to reduce CO<sub>2</sub> emissions to the atmosphere from large-scale sources. The PCOR Partnership, made up of more than 100 private and public sector members, is providing data, guidance, and practical experience with carbon capture and storage. The PCOR Partnership region includes all or part of nine states and four Canadian provinces. The PCOR Partnership is one of seven regional partnerships operating under the U.S. Department of Energy National Energy Technology Laboratory's Regional Carbon Sequestration

## About the EERC

Featured Programs

**PCOR** Partnership

Partnership Program.





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### PCO<sub>2</sub>C

The EERC's PCO<sub>2</sub>C Program is demonstrating commercially viable CO<sub>2</sub> separation and capture technologies for fossil fuel- and biomass-fired systems. Working with leading companies in the CO<sub>2</sub> capture area, the PCO<sub>2</sub>C Program is providing key technical and economic information that can be used to examine the feasibility of those technologies for commercial deployment.

### **Bakken Production Optimization Program**

The EERC is working with top producers in the oil and gas industry to improve oil recovery in the Bakken system while at the same time reducing its environmental footprint. The program is providing critical solutions for flaring, water, NORM (naturally occurring radioactive material), reclamation, and spills and other wellsite productivity issues affecting all Bakken producers.

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