EERC

PCO2R Partnership

Plains CO_2 Reduction (PCOR) Partnership

Fact Sheet

Practical, Environmentally Sound CO_2 Sequestration

Demonstrating CO_2 Storage in the PCOR Partnership Region

The Plains CO_2 Reduction (PCOR) Partnership is in its 20th year of collaboration with public and private partners to demonstrate the permanent, safe, and practical underground storage of carbon dioxide (CO_2) from industrial facilities—carbon capture, utilization, and storage or CCUS:

- In Phase I of the program (fall 2003 to fall 2005), work focused on characterizing the stationary CO_2 emission sources as well as the geological storage layers suitable for CO_2 storage in the PCOR Partnership region.
- In Phase II (fall 2005 to fall 2009), the PCOR Partnership completed four small-scale field validation tests.
- The multifaceted Phase III program, active through December 2018, was built around commercial-scale demonstrations and unprecedented collaboration at the local, regional, and cross-border levels.
- The PCOR Partnership Initiative (2019–2024) is focused on identifying and addressing regional storage and transportation challenges facing the commercial deployment of CCUS.

Integrated Approach

The PCOR Partnership takes an iterative approach to project design and assessment. Elements from site characterization, modeling and simulation, risk assessment, and monitoring, verification, and accounting (MVA) strategies are integrated and continually reassessed as the project moves from initial design, through testing, and into the operation and closure phases. For example, knowledge gained from site characterization can improve the accuracy of values assigned to geologic reservoir properties. This reduced uncertainty, in turn, improves the ability to model behavior in the storage zone, assess risks, and refine the MVA design. As its knowledge and experience of CCUS grows, the PCOR Partnership is better able to assist project developers, provide insight to regulators, and help inform and educate the public.

Facilitating Sound, Consistent CCUS Regulations

CCUS projects within the PCOR Partnership region have to satisfy requirements of the appropriate national regulatory regimes as well as the requirements of state or provincial regulatory agencies. The PCOR Partnership conducts annual "regulatory roundup" meetings to provide state and provincial regulators with an annual update of the regulatory, legislative, and policy activities related to CCUS within the PCOR Partnership region. The meetings also provide an opportunity to renew working relationships, learn from each other's successes, and have an open forum for discussions of technical and regulatory policy, including carbon management strategies and items of interest related to the CCUS industry. The PCOR Partnership continues to help members stay abreast of evolving regulatory conditions and, through its members' actions, has played a role in assisting the Interstate Oil and Gas Compact Commission to help clarify regulations.

Outreach and Education – Informing and Engaging Stakeholders

Engaging the public, policymakers, and industry on CCUS remains an essential component of PCOR Partnership activities. Public and partners-only Web sites provide information in terms and context tailored to meet the needs of these distinct demographics. Fact sheets, scientific presentations, posters, and reports inform technical audiences, while products such as the regional atlas, presentations, and nontechnical posters tell the story of CCUS for a general audience.

CCUS Deployment

We are seeking partners to advance technology, business cases, and regulatory environments to deploy CCUS. The PCOR Partnership Initiative builds on the combined 26 years of applied research from the PCOR Partnership and the Partnership for CO_2 Capture (PCO_2C). The applied research, collaboration, and extensive technical knowledge base are the proven foundation for expanding the Initiative.

The PCOR Partnership, funded by the U.S. Department of Energy's (DOE) National Energy Technology Laboratory (NETL), the North Dakota Industrial Commission's Oil and Gas Research Program and Lignite Research Program, along with more than 230 public and private partners is accelerating the deployment of CCUS technology. The PCOR Partnership is focused on a region comprising ten U.S. states and four Canadian provinces in the upper Great Plains and northwestern regions of North America. It is led by the University of North Dakota Energy & Environmental Research Center (EERC), with support from the University of Wyoming and the University of Alaska Fairbanks.

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Visit the PCOR Partnership Web site at **www.undeerc.org/PCOR**. New members are welcome.

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