

**Underground Storage of Produced Natural Gas
Project Update and Proposed Path Forward
Prepared by the EERC; September 2020**

Description:

In response to Section 25 of House Bill 1014 of the Sixty-Sixth Legislative Assembly of North Dakota as signed into law by Governor Burgum the Energy & Environmental Research Center (EERC) was previously directed to evaluate the concept of produced gas storage. The Legislature increased the amount of funding to be appropriated to the Oil and Gas Research Fund in the amount of \$6,000,000 for this evaluation to be completed. On June 20, 2019 the Industrial Commission authorized the funding contingent on Oil and Gas Research Council approval and the commitment of matching funds. On July 22, 2019 the Oil and Gas Research Council approved the funding contingent upon match funding being received. The overall goal of the proposed effort was to demonstrate the technological and economic feasibility of produced natural gas (“produced gas”) injection into non-hydrocarbon-producing subsurface formations in the Williston Basin for future recovery and use or for pressure maintenance and/or enhanced oil recovery in a conventional or unconventional oil reservoir.

Beginning in July 2019 and extending through June 2020, the EERC worked closely with XTO Energy (XTO) on the assessment of two of XTO’s three contemplated pilot projects. As part of this work EERC and XTO also worked closely with the North Dakota Industrial Commission (NDIC) Department of Mineral Resources (DMR), the ND Office of the State Tax Commissioner, the ND Department of Trust Lands, and the US Department of the Interior Bureau of Land Management (BLM) to define the key tax, royalty, and regulatory components that would need to be addressed to implement the project, including areas where regulatory clarity was needed with respect to implementation of gas storage projects.

Due to the impacts of COVID 19 and ensuing downturn in oil prices, XTO indicated that it would stop work on the evaluation of their pilot projects. The information gathered and the work that has already been done will be made available in a report being prepared by the EERC. Subsequently, the EERC has identified potential partners that have expressed an interest in continuing the research and demonstration program with pilot projects that include gas storage in a saline formation, a conventional reservoir and the Bakken Production System.

The EERC has requested that the Oil and Gas Research Council approve the EERC continuing to do this work with new partners and extend the time frame for completing this work. Reporting as outlined in the contract with the Industrial Commission will continue to be presented to the Oil and Gas Research Council and the Commission and Legislature.

Recommendation:

Accept the update from the EERC on the work that has been completed on the legislatively directed gas storage study, approve the proposed plan for additional work with new partners who will provide the match funding and recommend the extension of the contract into the 2021-2023 biennium.