

Comments on Senate Bill S.699

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Chairman Bingaman and Members
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The Illinois State Geological Survey at the University of Illinois is one of the largest and most diverse state geological surveys in the United States. Beginning in 2001, we have been researching carbon capture and storage in the Illinois Basin of Illinois, southwestern Indiana, and western Kentucky. We have led the Midwest Geological Sequestration Consortium, one of the seven Regional Carbon Sequestration Partnerships supported by the U. S. Department of Energy, since 2003. In 2008, we began developing a one million metric ton demonstration of carbon dioxide capture and storage in collaboration with the Archer Daniels Midland Company at Decatur, Illinois. Injection is expected to begin at the rate of 1,000 tonnes per day in September 2011 and continue for the next three years. As a result of directly dealing with such issues as Underground Injection Control permitting, pore space ownership, liability, and community stakeholder engagement, we are pleased to offer our comments on S.699.

We commend the criteria established in this bill to define a large-scale injection to mean the injection of at least one million metric tons per year and to specify a set of project selection criteria that require the submittal of comprehensive geological data and appropriate plans for environmental monitoring. We see these Project Selection provisions as requiring selected projects to be beyond the applied research stage. Applicants must demonstrate thorough knowledge of their proposed site based on existing information or new information, such as geophysical surveys, specifically obtained to validate their application to the Secretary. A basic research project will not and should not qualify. The Secretary, however, will require the staff to assure that the information submitted is adequate and complete in order to minimize the risk to the Government and the taxpayer under the indemnification provisions.

The recently adopted Class VI Underground Injection Control, or UIC, regulations will also assure that many of the provisions of S.699 are met. These regulations require that underground sources of drinking water are protected, and no injection project may proceed without a UIC permit. UIC regulations cover all aspects of carbon dioxide injection from site characterization to well construction and from operational monitoring to site closure. Many of the provisions of the UIC Class VI regulations are mirrored in the Post Injection and Monitoring Elements of S.699 which, in effect, means that the US EPA, or state EPAs in states with primacy, will have the leading enforcement role. Close coordination between the Secretary of Energy and these organizations will be required.

With respect to liability, risks during site operations and immediately following closure can be minimized through rigorous geological site characterization and excellent operational and site-closure practices. Best-practices guidelines have been developed for many of these activities based on DOE-supported applied research conducted since 2003. We believe the indemnification provisions of S.699 represent a backstop to new UIC Class VI regulations and to privately insurable activities that commercial carbon storage operators will normally engage in, such as drilling of injection wells. Beyond these requirements, the Government's indemnification is necessary to allow projects to proceed where the risk profile beyond post-closure stewardship is poorly known. Given that it is in the public interest for carbon capture and storage to be thoroughly evaluated, the provisions of S.699 that allow for a pool of up to 10 indemnified projects will help establish a risk profile that can inform long-term liability under a fee-supported structure. These projects must be carefully selected and monitored, however, to ensure that public indemnity is warranted at the outset and not abused by poor practices during project execution and post-closure stewardship. We would also suggest that the projects be selected in geologically diverse areas to maximize understanding of relative risk.

Mr. Chairman and Members, we appreciate the opportunity to submit these comments to the Committee and would welcome any follow-up communications that would be useful to you.