

Department of Energy Carbon Capture and Sequestration Program Amendments Act of 2009

Program Goal

The goal of the large-scale carbon storage program is to provide financial and technical assistance of up to 10 commercial deployment sized carbon dioxide storage projects.

Rationale for Program

Geologic carbon capture and storage is poised to be a meaningful part of a portfolio of options for addressing climate change. Deploying sequestration will involve overcoming a series of challenges including demonstrating and deploying both capture and sequestration at large scale and in the face of some uncertainty about the policy, regulatory and liability risks.

Numerous small scale injection tests have taken place and are underway; however, large-scale (greater than 1,000,000 million tons of carbon dioxide injected annually) have not yet been undertaken. About 25 of these small injection tests are currently sponsored by the DOE Regional Carbon Sequestration Partnership program but increasingly, states and private companies are undertaking these tests to assist in regional site characterization and to build expertise. The partnership program has recently entered a third phase that will involve seven larger projects, whose total projected carbon dioxide injected will average about 1,000,000 tons over the life of the project.

There is a clear need for liability treatments for early mover projects, in addition to adequate project financing. At present many industry stakeholders site major concerns with the existing petroleum production regulations, as they may or may not apply to geological storage, as well as a lack of a clear framework for closing down a geological storage site. Liability treatment is one way of building confidence for project developers, as well as the public, that the projects will be conducted safely with a lower probability of incurring liability damages.

It is essential when considering the topic of safe, long-term storage of carbon dioxide to discuss the need for site stewardship during the injection phase, directly following closure and for long-term preventative maintenance of the geologic storage site. Many stakeholders fold maintenance into liability; however they should be viewed as two separate issues. Maintenance is essential for reducing risk and limiting liabilities at the storage site. As such, it will be critical to have robust monitoring and verification of the injected carbon dioxide plume at each of the storage sites that continues well past the moment where injection ceases. With a proper site maintenance program developed for each project, risk will be minimized and developers will have greater confidence that liabilities will not be incurred. This legislation will require science-based monitoring and verification of the injected carbon dioxide plume throughout the life of the project to well beyond the closure phase.

As CCS projects grow in both scale and number, there will be an increasing need to train qualified regulators to oversee the permitting, operation, and closure of geologic storage sites. This bill creates a grant program whose goal is to train State agencies and personnel who oversee the regulatory aspects of geologic storage of carbon dioxide.