

Statement by

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Regarding S.699

Department of Energy Carbon Capture and Sequestration Program Amendments Act of 2011

Environmental Defense Fund (EDF) appreciates the opportunity to speak in support of S.699 as the Committee considers how to help early carbon capture and sequestration (CCS) projects conduct operations in a safe and effective manner and otherwise address risk management issues. Since 1967 EDF has linked science, economics and law to create innovative, equitable and cost-effective solutions to urgent environmental problems.

The primary challenges to CCS deployment are not technological. The component technologies exist today. Rather, the primary barrier is the lack of a commercial basis for deployment.

Without a policy mechanism that internalizes the costs of carbon pollution – such as a declining cap on carbon emissions, or more robust regulatory requirements than are currently being contemplated – it is unlikely that we'll see CCS deployment at scale. As such, costs will remain high and technology advancements will be slower than they would otherwise be.

However, the problem of climate disruption isn't going away. As a society, it is something we will be forced to address, sooner or later, whether we like it or not. And EDF believes that successful deployment of geologic sequestration will be a critical technology option if we are to accommodate fossil energy in a carbon-constrained future.

EDF therefore supports moving forward with pilot projects that can help us begin the process of acquiring operational experience with CCS. We likewise favor moving forward judiciously in building up the legal and regulatory frameworks that will be necessary to support CCS commercialization.

Progress is being made on this front. For example, in December the EPA promulgated final rules for geologic sequestration of CO₂ under the Underground Injection Control program and for injection and geologic sequestration of CO₂ under the greenhouse gas reporting program. These rules represent important steps forward in laying the groundwork for CCS deployment.

As Congress and the Administration contemplate additional steps on the legal and regulatory front, though, it will be important to not get too far ahead of our on-the-ground experience.

Decision makers should resist the temptation to intervene in the marketplace or create exemptions in fundamental laws that protect citizens and the environment in an attempt to solve problems or reduce barriers to CCS deployment that may not actually exist.

CCS Does Not Present Inherently Unique Financial Risk Management Challenges

It has been suggested that the private market will not provide adequate financial risk management tools for CCS projects and that operators will need unlimited and perpetual “liability relief” in order to move forward with CCS projects. EDF strongly disagrees with this assertion.

Under the right conditions, CCS should present risks no greater than those posed by any number of other similar activities. The IPCC Special Report on Carbon Capture and Sequestration concluded in 2005 that the local health, safety and environmental risks of CCS are comparable to the risks of similar underground injection and storage activities if there is “appropriate site selection based on available subsurface information, a monitoring programme to detect problems, a regulatory system and the appropriate use of remediation methods to stop or control CO₂ releases if they arise.”

With these protections in place, CCS projects should be able to secure risk management tools in the private marketplace, rather than rely on taxpayers to take on the liability risks associated with projects.

There is no special liability relief for the enhanced oil recovery business. Businesses engaged in the underground injection of industrial and hazardous wastes operate without any special liability relief. Natural gas storage operators are not shielded from liability. Firms in these industries face potential liability for their actions until normal statutes of limitation have run their course or the companies are relieved of liability through bankruptcy. Yet all of these businesses inject material into geologic formations and appear to have little trouble attracting investment capital and risk-management tools in the marketplace.

We recognize, however, that at this early stage the private sector has not yet developed a robust suite of risk management tools for CCS projects. At least one private-sector insurer is now offering policies for CCS projects. But ultimately it will take on-the-ground operational experience to generate the actuarial data on which a robust and well-calibrated suite of risk-management options can be built. Similarly, on-the-ground experience will help banks and other investors better understand project risk, which should bring down the costs of capital over time.

S.699 is a Measured Approach to a Temporary Problem

Given these facts, EDF is willing to support temporary, limited and thoughtful intervention in the marketplace in order to acquire the operational experience that will support the development of a broader range of risk management options in the private sector. It is critical, however, that any such intervention put protections in place to avoid the problems of “moral hazard” that are inherent to broad liability relief.

Current liability rules, grounded in common law and statutes, serve an important purpose – encouraging people to take prudent and necessary steps to avoid putting fellow citizens and investors at risk. Privatizing economic benefits while socializing the associated risks through so-called liability relief increases the odds that shortcuts will be taken and warnings will be ignored, potentially leading to disastrous results.

S.699 strikes an appropriate balance between the need to provide limited indemnification to early CCS projects – in order to generate the operational experience that will allow the private sector to take over the task of financial risk management – and putting protections in place to reduce the risk of “moral hazard” for these early projects.

First and foremost, the indemnification program under S.699 is limited. Limiting the program to 10 projects puts future project operators, as well as private insurers, on notice that liability relief is not going to become a permanent fixture of the legal regime governing CCS. We anticipate the private insurance market will respond by closely observing the 10 demonstration projects and developing private insurance products to meet the needs of future projects. Likewise, expect the CCS industry itself will use the experience gained through the demonstration projects to develop self-insurance strategies and mutual insurance arrangements.

Second, in order to be eligible for an indemnification agreement, S.699 requires project operators to seek financial assurances in the private marketplace and only provides indemnification from liabilities over and above those privately-secured financial protections. Requiring project operators to have “first dollar” responsibility for any damages that may arise is a critical step toward minimizing moral hazard.

Third, S.699 requires recipients of indemnification agreements to pay risk-based fees to cover the taxpayer exposure for the 10 projects. Risk-based fees provide an important incentive for careful planning of CCS projects – in particular as relates to site selection, an issue of utmost importance to project safety.

Fourth, project selection is competitive and based on a number of eligibility criteria that can be thought of as “underwriting standards.” In particular, requirements for detailed geologic characterization and risk analysis and requirements for thorough measurement, monitoring and verification serve as important thresholds to protect taxpayers, local communities and the environment.

By establishing a program that mimics risk management models that exist in the marketplace, and by restricting the program to a limited number of early projects, S.699 should help lay a foundation for the development of market-based solutions to the emerging CCS industry’s need to manage financial risk at a reasonable cost.

Post-Closure Infrastructure Maintenance – An Appropriate Government Function

Properly closed sequestration sites will require stewardship for long time periods even though there is sound basis to believe that properly planned and operated projects will present minimal risk in the post-closure period. EDF supports the creation of a third-party entity, adequately funded by industry, to manage the maintenance of properly closed sequestration sites. Ultimately the function might be privatized, but it makes sense for the government to perform this role for early projects.

The bill extends DOE's post-closure stewardship obligations beyond simple infrastructure maintenance (plugging the occasional leaking well, conducting a low-intensity monitoring regime, etc.) to include "remediation activities to ensure the geological integrity of the site and prevent any endangerment of public safety." Given the nature of the program established by S.699 – one in which the government will indemnify eligible sites for damages that do not arise from gross negligence or intentional conduct – we believe this broad definition of stewardship is appropriate.

When long-term stewardship policies are crafted for future projects, however, we recommend that Congress re-consider the scope of any third-party stewardship program. Creation of a third-party entity for site maintenance is probably appropriate for both early projects and later projects, but the optimum funding method, duties and obligations of the stewardship entity are likely to be different once the marketplace has had time to develop robust insurance offerings and other risk mitigation tools.

And while it may be appropriate to allow a future third-party entity to take on routine stewardship responsibilities, it would not be appropriate to transfer responsibility for remediation or other liabilities to a third-party entity in the post-closure phase. Again, this would raise the prospect of moral hazard. Certainly, decisions made during a project's operational phase could lead to problems that might not materialize until post-closure. Therefore, responsibility for liabilities that may arise should rest with the project operator, even in the event that a third-party entity takes on stewardship responsibilities.

Assisting State Regulatory Agencies

EDF is pleased that the bill establishes grants to state agencies for employee training purposes. CCS projects raise a number of new regulatory issues and federal assistance in helping to educate state agencies regarding these issues is important.