

Opening Remarks

Justin (Judd) R. Swift
Deputy Assistant Secretary for International Affairs
Office of Fossil Energy, U.S. Department of Energy

*5th Capacity Building Workshop
of the
Carbon Sequestration Leadership Forum Task Force on Capacity Building for Emerging
Economies
at the
2nd Petrobras International Seminar
on CO₂ Capture and Geological Storage*

9-12 September 2008, Salvador/BA, Brazil

Thank you very much, Carlos, for the warm introduction. It is my distinct pleasure to be a part of this second capacity building workshop conducted in Brazil by the Carbon Sequestration Leadership Forum, or the CSLF as it is often known, and the Task Force on Capacity Building for Emerging Economies. As I am certain you will all agree, this workshop has the good fortune of being surrounded by the robust framework of Petrobras' 2nd International Seminar on CO₂ Capture and Geological Storage.

Before I begin, I'd like to congratulate the many planners and organizers for their hard work that went into preparing and now executing both events through the international experts who have come from around the world to share their CCS knowledge. To all involved, I again offer a most sincere "muito obrigado".

As Chairperson of this Task Force, I must say that I am excited to be back in Brazil, meeting on such an important topic as CCS. It was only 11 months ago since we last met in Brazil. Since then, we've convened two CSLF capacity building workshops...one in Al Khobar, Saudi Arabia this past January, and the other in Mexico City, Mexico, this past July. Last November, we also convened our 3rd joint workshop on near term opportunities for carbon capture and storage with the International Energy Agency.

So, clearly, the CSLF is living up to its charter as a cooperative partnership of developed and developing nations that, together – and the watchword here is indeed TOGETHER – that together, are developing and making widely available the technology and best practices necessary to conduct the safe management and long-term storage of man-made CO₂.

For those of you unfamiliar with the CSLF, it was organized in 2003 as a voluntary climate initiative of 21 developed and developing nations, plus the EU. Together, the members account for at least 75 percent of all man-made CO₂ emissions and a slightly larger share of global economic activity. Its activities are carried out through a Policy Group and a Technical Group, each of which has various task forces beneath it.

The Capacity Building Task Force has 11 members, including:

- Australia
- Canada
- Colombia
- European Commission
- India
- Italy
- Mexico
- Saudi Arabia
- South Africa
- United Kingdom
- United States, which Chairs this task force.

Through the Capacity Building Taskforce, the CSLF assists its six emerging economy Members – Brazil, China, Colombia, India, Mexico, and South Africa – in developing the institutional and human resources needed for undertaking and managing carbon sequestration projects. This is being accomplished by:

- Assisting emerging economy Members to develop the knowledge, skills, expertise and institutions they need to understand and implement carbon sequestration;
- Developing a set of informational, training and educational resources that all CSLF Members can utilize; and
- Identifying, documenting and transferring lessons learned from the prior experience of CSLF-recognized projects and sequestration-related institution building.

If you survey the open literature and surf the internet, it becomes immediately evident that the topic of CCS is taking root globally – not just in developed countries, but in developing countries as well. Numerous countries, institutions, organizations, and sectors have begun to address the issue and their exposure and its impact, and potential responses, while a good number have taken definitive action. These two events that we are attending here in Salvador bear witness to the fact that the roots of Brazil's commitment to addressing this issue run very deep.

Despite the availability of technology right now to capture carbon from new pulverized coal and IGCC power plants, and the growing impetus for its advancement, there is no shortage of barriers to the large-scale deployment of CCS. There is no escaping the facts; CCS is not cheap, and its impacts are registered in parasitic energy loss and increases in both capital cost and cost of electricity.

What we are proposing to do is complex on a host of levels. Where are we going to put all of this CO₂? What is this going to cost? How reliably can we store it? And then there are the infrastructure issues: transport lines, permitting, the regulatory framework, public perception, risk and liability, and the best practices and human resources necessary to do this right not just once, but on a replicable basis...which will facilitate wide-scale global deployment.

In closing, I think it important to note that, in today's energy starved world, there is simply no bad form of energy. We must find ways to use all forms of energy as cleanly and efficiently as possible. Our ultimate goal, indeed, the goal of every nation, is energy security, which can be defined simply as: ***RELIABLE, AFFORDABLE, AND ENVIRONMENTALLY SOUND ENERGY FOR THE FUTURE.***

This quite complex goal can only be reached by industry, academia, and governments working together to take the best ideas out of the laboratory into the commercial marketplace. Widespread adoption of new, advanced technologies can be achieved only if appropriate regulatory environments and market conditions exist, which governments can help create. Working together to achieve such solutions makes far more sense than trying to do so alone.

Globally, we most likely must transition from fossil fuel dependent economies with significant CO2 emissions to energy economies with limited and possibly no CO2 emissions. As my colleague, Barbara McKee, noted at the start of the Petrobras seminar – ***FAILURE IS NOT AN OPTION.*** I am confident that the need for a continued substantial commitment to CCS RD&D, especially at the large-scale demonstration level, will be met through cooperation among countries and organizations that bring developed and developing countries together to share information, resources, experience, and people.

The developing economies cannot tackle this alone, and neither can the developed nations. We must work in concert...sharing information, resources, and the workload. Many of us are doing this now through various international organizations, such as the CSLF, the Asia Pacific Partnership on Clean Development and Climate, and the International Partnership for a Hydrogen Economy, to name a few. Each of these organizations has its own mandates and action plans, but collectively, like-minded countries, companies, and other organizations are working together on a common pathway. Most assuredly, there are those who think us foolish or narrow-minded in our approaches, but I challenge them to put forth a more rational, more feasible, more economically viable plan with the same impact that we are confident in achieving.

To all of you who have planned or contributed in some fashion to CSLF meetings, projects, workshops and so forth, whether your country is a CSLF member or not, I thank you for your time and your efforts. Individually and collectively, you have built on each prior event and project, and helped to advance not just the CSLF, but the concept of CCS as viable option in a carbon-constrained world. And for that, you owe yourselves a round of applause.

Thank you for your attention, and I trust that you take from these two events here in Salvador as much as each of you will have contributed to them.