

Carbon Sequestration leadership forum

CSLF-P-2010-04
31 August 2010

www.cslforum.org



POLICY GROUP

Financing Roundtable

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FINANCING ROUNDTABLE

Note by the Secretariat

Background

Commercial financing of CCS is a critical prerequisite to the widespread deployment of CCS. The financing of CCS projects has therefore been a topic that has been addressed by the CSLF since its inception through various Policy Group discussions, task force activities and workshops. During the year since the London Ministerial, the CSLF has undertaken three activities on financing:

- A study by the Asian Development Bank on financing CCS in developing countries;
- Updating the CSLF Incentives Registry and analyzing its findings; and
- Two roundtable workshops on financing commercial CCS projects.

The results of these three activities will be presented to the Policy Group as a basis for a roundtable discussion of financing issues. Abstracts of each of these presentations follow.

Action Requested

Policy Group delegates are invited to discuss the financing issues brought out in the presentations and to decide upon next steps for the CSLF in the area of financing.

FINANCING CCS IN DEVELOPING COUNTRIES

Ashok Bhargava, Asian Development Bank

Abstract

Background

The importance of the Carbon Capture and Storage (CCS) technologies to fossil fuel based developing member countries (or emerging economies) of the Carbon Sequestration Leadership Forum (CSLF) can not be overemphasized. While there are multiple challenges in launching CCS demonstration projects in developing countries, the higher capital cost combined with significantly high “energy penalty” is often cited as a key barrier by the potential CCS developers and investors in these countries. The “financing gaps” for CCS, which are already well documented by the International Energy Agency (IEA) are critical bottlenecks and primary reasons for slow (or stalled) progress for CCS development in developing countries.

To analyze these issues and barriers with particular emphasis on a possible financing roadmap for CCS demonstration in developing countries, the CSLF’s Financial Issues Task Force requested a study by Asian Development Bank (ADB) during its December 2008 meeting at New Delhi, India. The ADB technical assistance study is in final stages with a draft final report (the report) to be tabled during the CSLF Annual Meeting in Warsaw, Poland in October 2010.

CCS Demonstration in Developing Countries – Way Forward

The report aimed to examine the CCS issues from the developing countries’ perspectives. The CCS demonstration as discussed in the report primarily targets CCS application in coal-fired power plants in developing countries. While it is acknowledged that there is other perhaps equally important areas of application, the coal-fired power plants were prioritized due to possible good replication effect in next 5-10 years. The study is supported by extensive data and information available from the People’s Republic of China (PRC) and to some extent from India. But the report analysis is generic enough to be applicable to other developing countries.

The report presents all relevant issues and barriers and their interplay. In particular, the report examines the CCS relative costs and electricity tariff compared to not only without CCS coal-fired power plants in PRC but other CO₂ free options – wind and solar – to identify unique challenges and barriers faced by CCS for inclusion in the developing countries’ portfolio of technologies and programs for reducing carbon intensity.

The report emphasizes the essential need for implementing demonstration projects now in developing countries to accelerate learning and build confidence in the technology. It recommends a set of incentives to stimulate CCS in developing countries during the demonstration phase to overcome financing gaps till the right CO₂ prices will set in.

ADB’s presentation in the Policy Group meeting will provide a snapshot of the report’s analysis and recommendations.

CSLF INCENTIVES REGISTRY UPDATE

Jeffrey Price, CSLF Secretariat

Abstract

The CSLF Incentives Registry is an on-line compendium of commercial, fiscal, and market-making incentives used to promote the deployment of CCS technology and projects, as well as policy measures countries used to support CCS. The Registry was first completed in early 2009 and has now been updated several times, the most recent in July and August 2010. The most recent update includes an upgrade to the web page for the Registry to make it more readily searchable by type of incentive and jurisdiction.

The most recent updated registry contains information on 105 incentives at the national and sub-national level from countries throughout the world. This is a substantial increase from the 65 identified in the first edition of the incentives registry which was presented at the June 2009 meeting of the Policy Group in San Francisco.

This presentation to the Policy Group will provide an analysis of the types of incentives now being implemented for CCS around the world. The updated Registry is accessible at <http://cslforum.org/incentivesregistry/index.html>.

KEY OUTCOMES FROM CSLF FINANCING ROUNDTABLE WORKSHOPS

Bernard Frois, Chair of CSLF Financing CCS Task Force

Abstract

The major activity of the Financing CCS Task Force in 2010 was holding two CCS Financing Roundtables. The objective of these events was to engage the investor community in a dialog concerning critical policies and incentives needed to finance and build the initial wave of energy or industrial plants with CCS. Recommendations from these Workshops were intended for consideration by the G8.

The first Roundtable in London on January 27th provided an “expert framework” for a wider dialog with industry, investors, and policy-makers. The second Roundtable, titled “Commercial and Financial Structuring of Industrial Scale Projects with CCS”, took place in Washington on April 6th. These Roundtables, arranged for the Financing CCS Task Force by the CCS Alliance (Washington, DC) and the Carbon Capture and Storage Association (London), provided an additional lens through which to see the recommendations brought forward by a previous “Bridging the Commercial Gaps” workshop that was held in New York City in September 2009.

Summary of Roundtable Outcomes

At commercial scale, there are no “CCS projects”; instead there are energy projects with CCS. Funding models were presented by representatives from government and industry, and key risks were highlighted (e.g., capital recovery, liability for CCS leakage). Each example showed the value of adapting tools to regional strengths and weaknesses and project features in deploying projects with CCS. An important conclusion was that no single incentive works. Hence, a suite of incentives and funding models are needed for governments to mobilize private investment capital tailored to regional attributes and development priorities (e.g., access to coal and fuels, power pricing, features of CCS sites, public attitudes, competing supply), and the CSLF should develop a “toolkit” of approaches and funding models that offers multiple combinations of incentives.

Another conclusion was that where states or agencies can provide certainty on electricity rates or tariffs (e.g., through rate approval), this will dramatically improve capital recovery prospects for debt financing, which is lower cost capital than equity financing. Large energy projects must be able to tap debt markets.

Also, credit support (e.g., loan guarantees or off-take support) is critical for early projects with CCS, rather than grants alone. Unlike grant-funded CCS projects, projects with CCS must repay debt financing with economic revenues from power sales or commercial products.

Investment capital is global in nature, and projects with CCS will attract financing as well as engineering and technical inputs from several countries. Collaboration of this nature will create multi-national consortiums to share risks and mobilize more funding. No single country can move alone. While emission trading systems might be preferred in some areas such as the European Union, financial incentives coupled with performance standards and fuel levies could offer another path forward (e.g., the “Boucher Bill” in the United States or wires charge in the United Kingdom). Also, it was recognized that the availability of cheap natural gas (such as in the United States) poses a significant economic hurdle that affects the level of incentives needed for projects to deploy CCS.

Meeting Presentations for the April 6th Roundtable in Washington, DC are online at the CSLF website: <http://www.cslforum.org/meetings/workshops/washington2010.html>