

Carbon Sequestration Leadership Forum

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POLICY GROUP

Policy Group Task Force Reports

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POLICY GROUP TASK FORCE REPORTS

Note by the Secretariat

Background

Three Policy Group task forces will give presentations reporting on their activities to the Policy Group:

- Communications and Public Outreach;
- Capacity Building; and
- Financing CCS.

Each has prepared reports, which follow.

Action Requested

Policy Group delegates are requested to consider the task force reports.

COMMUNICATIONS AND PUBLIC OUTREACH

Chair: John Grasser, United States

Summary

A key objective of the CSLF Strategic Plan is to “address the barriers to public awareness and acceptance” of carbon capture and storage (CCS) technology, both within CSLF Member countries and internationally. The Communications and Public Outreach Task Force is striving to achieve this objective via an integrated and collaborative communications effort that effectively engages key stakeholders and audiences in a variety of ways with timely, interesting, and educational information. Key tactics include:

- Encouraging Media Coverage – Undertaking a proactive effort, on the part of both members and the organization, to engage trade and major media, locally, regionally, and internationally.
- Engaging Key Stakeholders and Audiences – Providing timely information in an integrated effort that utilizes various communications tools.
- Maximizing Venue Use – Identifying on a country, regional, and international basis the most effective venues, meetings, and conferences for promoting CCS and the CSLF.

The Communications and Public Outreach Task Force has completed several tasks in pursuit of the objective:

- Redesigned the CSLF web site while continually improving functionality and content.
- Created new communications vehicles – developed talking points, a standard general speech, information kit, and power point presentation and template that help deliver consistent information and reinforce the CSLF identity.
- Completed development of CSLF daily clipping service for members and stakeholders.
- Completed redesign and printing of new CSLF handout materials.
- Completed redesign of a new CSLF exhibit.
- Completed a CSLF web page linking policy.
- Completed a CSLF conference sponsoring policy.
- Conducted a CSLF briefing event at the 2009 COP-15 meeting in Copenhagen.
- Completed and distributed a series of CCS “InFocus” message papers.
- Completed production of DVDs containing various CSLF materials for public distribution.

CAPACITY BUILDING

Chair: Abdulmuhsen Al Sunaid, Saudi Arabia

Summary

The objectives of the CSLF Capacity Building Task Force are to assist emerging economy CSLF Members to develop the knowledge, skills, expertise and institutions needed to deploy carbon capture and storage (CCS) technologies; develop training and educational resources that all CSLF Members can utilize; build on lessons learned from CSLF-recognized projects; and collaborate with other international CCS initiatives. To date, the CSLF has held six Capacity Building workshops in Brazil, Mexico, Saudi Arabia, and the United States. Topics covered have included the basics of CCS and why it is needed, monitoring and risk assessment for stored CO₂, and policy / regulatory / financial issues associated with CCS. An additional activity of the Capacity Building Task Force has been to explore creation of standardized, core training modules for capacity building based on materials from the initial workshops. These materials would be aimed at both public and private sector decision-makers.

A new CSLF Capacity Building Plan was approved at the 2009 London Ministerial. Key elements include disseminating practical information about CCS, building capacity in emerging economies, assisting government and regulatory agencies as appropriate and building capacity at academic and research institutions. The key guiding principle is to use a country-led process in which each country defines its own needs.

CSLF Capacity Building activities are to be supported by the CSLF Capacity Building Fund. The CSLF Capacity Building Executive Board will provide financial governance based on an agreed-upon Terms of Reference.



Status of CSLF Capacity Building Task Force

Abdulmuhsen Al-Sunaid, Saudi Arabia
Chair, Capacity Building Task Force
October 7, 2010

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The CSLF pioneered capacity building on CCS for developing countries.

- To date, six workshops have been held in:
 - Brazil
 - Mexico
 - Saudi Arabia
 - United States (for developing country participants)
- Topics covered include:
 - What CCS is and why it is needed
 - Introduction to capture, transport and storage
 - MVA and risk assessment
 - Policy, regulatory and financial issues

Capacity Building Task Force formed in 2005.

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Others are now beginning CCS building capacity activities.

- Global CCS Institute
- World Bank
- International Energy Agency

Coordination is important and underway.

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Unique CSLF Strengths in Capacity Building

- CSLF has the longest experience in capacity building.
- CSLF Membership by both industrialized and developing countries enables responsiveness.
- CSLF has the best ability to address policy, legal and regulatory issues as well as technical issues.
- It provides opportunity to networking and a deeper understanding of CCS related issues within member countries.

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Capacity Building Plan was approved in 2009.

- Updates original plan approved in Berlin in 2005
- Key elements include:
 1. Disseminate practical information;
 2. Build capacity in developing countries;
 3. Assist government and regulatory agencies; and
 4. Build academic and research institutions.
- Key Guiding Principle: Use a country-led process in which each country defines its own needs.

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Developing country Members expressed needs.

Audience	Expressed Need
Academic/ Research Institutions	<u>Mexico</u> <ul style="list-style-type: none"> • Introduce CCS in academic curricula
	<u>China</u> <ul style="list-style-type: none"> • Technologies and systems integration • Engineering capacity of CCS pilots and demonstrations • Human resources
Industry	<u>Mexico</u> <ul style="list-style-type: none"> • Provide understanding of CO₂ capture in Power Plants, ammonia, and gas treatment • Provide understanding of permanent storage
	<u>China</u> <ul style="list-style-type: none"> • Engineering capacity of CCS pilots and demonstrations • Human resources and public awareness
	<u>India</u> <ul style="list-style-type: none"> • Engineers gain understanding of CSS for reducing CO₂ emissions from coal-based industries.
	<u>Saudi Arabia</u> <ul style="list-style-type: none"> • Harmonizing monitoring technologies to develop uniform monitoring protocols
Government	<u>China</u> <ul style="list-style-type: none"> • Information on how to establish a comprehensive and flexible regulatory environment • Human resources and public awareness

Implementation plan to meet these needs was developed.

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Activities to be paid for by CSLF Capacity Building Fund.

- Composed of contributions by Members and others
- Contributions managed by US DOE
- Contributions to date total US\$ 2,055,792.20

Canada	US\$ 233,073.75
Global CCS Institute	US\$ 939,961.17
United Kingdom	US\$ 882,757.28
- CSLF Capacity Building Executive Board is to provide financial governance based on agreed-upon Terms of Reference.

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Capacity Building Fund Terms of Reference

- Initially drafted by Secretariat
- Discussed in meeting in Oslo for contributors and developing countries , March 2010. Attendees:

Secretariat	Norway
Brazil	Saudi Arabia (Task Force Chair)
Canada (by Phone)	United Kingdom
International Energy Agency	World Bank
- Few issues remain unresolved.

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Capacity building activities are stalled due to disagreements over Fund Terms of Reference:

Unresolved Issues

- Can non-CSLF Member contributors be voting members of the Council?
 - Non-CSLF Member contributor: Global CCS Institute
- Can the CSLF Secretariat use the Fund for Program Management?
 - Currently estimated at 8% of Contributions or US\$ 164,463.38
- Membership of CSLF Capacity Building Executive Board

Can these issues be resolved in this Policy Group meeting?

FINANCING CCS

Chair: Bernard Frois, France

Summary

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.