## Carbon Sequestration leadership forum

CSLF-P-2010-09





### Minutes of the Policy Group Meeting

Warsaw, Poland Thursday, 07 October 2010

#### LIST OF ATTENDEES

#### **Policy Group Delegates**

Chair: Victor Der (United States)

Australia: Bruce Murphy

Brazil: Daniel Lins, Bernardo Stumm

Canada: Siddiq McDoom
China: Sizhen Peng, Xin Li
European Commission: Wiktor Raldow

France: Bernard Frois, Christian Oeser

Greece: Nikolaos Koukouzas Italy: Sergio Garribba

Japan: Hirotada Bessho, Noriaki Ozawa

Korea: Shin Sung-Chul

Mexico: José Miguel González Santaló Norway: Tone Skogen, Kristoffer Stabrun

Poland: Piotr Kisiel

Saudi Arabia: Abdulmuhsen Alsunaid, Khalid Abuleif

South Africa: Faizel Mulla, Landi Themba

United Arab Emirates: Keristofer Seryani

United Kingdom: Jonathan Holyoak, Debbie Stockwell

United States: James Wood

#### **CSLF Secretariat**

Barbara McKee, Jeffrey Price, Scott Miles

#### **Observers**

Poland: Erland Fjosna (Bellona), Andrzej Gula (Bellona),

Marek Zaborowski (Bellona)

United Kingdom: Luke Warren (Carbon Capture and Storage Association)

United States: Jeffrey Jarrett (Leonardo Technologies Inc.),

Paul Loeffelman (American Electric Power),

Andrew Paterson (CCS Alliance), Justin Swift (Swift Global Solutions)

Asian Development Bank: Ashok Bhargava, A. Damodaran, Klaus Gerhaeusser,

Clement Yoong

Global CCS Institute:
International Energy Agency:
World Bank:
World Energy Council:
Bob Pegler
Juho Lipponen
Natalia Kulichenko
Elena Nekhaev

#### JOINT OPENING SESSION

#### 1. Chair's Statement

Policy Group Chairman, Victor Der of the United States, welcomed delegates and observers to the seventh annual CSLF meeting and he thanked Deputy Prime Minister Waldemar Pawlak and the Government of Poland for their generous support and efforts in hosting the meeting. He stated the fact that the meeting was being hosted in Poland was indicative that Poland wants to be a leader in the global effort to meet the climate change challenge. Dr. Der also thanked the Polish Undersecretary of State of the Ministry of Economy Marcin Korolec and the Polish organizing committee who worked diligently and the Secretariat for making this meeting a success.

Dr. Der noted that the CSLF has grown from 13 to 24 Members and its importance is being recognized by governments throughout the world. The CSLF is working to address both technical and non-technical barriers to carbon capture and storage (CCS) and has made much progress. An indication of the progress being made on CCS is that governments and the private sector have made major commitments of over US\$26 billion to CCS and many projects are being undertaken and some have been completed throughout the world. Collaboration of so many of the world's experts that is made possible by the CSLF has unlimited potential.

Trygve Riis, Chairman of the Technical Group, described the progress of the Technical Group over the last year. This includes the new 2010 Technology Roadmap, which has received widespread attention, and new projects recognized by the CSLF. The projects recognized by the CSLF are very important to the advancement of CCS and the Technical Group is now considering methods to extend collaboration on those projects.

#### 2. Host Country Remarks

Waldemar Pawlak, Deputy Prime Minister and Minister of the Economy of Poland, made remarks on behalf of the Polish government. These remarks stressed the need for technologies such as CCS and clean coal technologies that allow Poland to use its abundant coal resources without harm to the environment. Poland also wants to avoid replacing its coal with imported gas. He also noted that the International Energy Agency (IEA) projects that coal will continue to play a major and growing role throughout the world and that these clean coal technologies would be required globally. The Polish government recently released a report on energy in Poland until 2030, and this report has emphasized the need for clean coal technologies and especially CCS. It is also important to look at the emissions from other sectors such as transportation. Technology is the key in all sectors. Poland is conducting research on clean coal technologies and CCS in its research institutions. In this regard, a clean coal technology center has been established in Silesia. One activity will be research of carbon storage in coal seams.

#### POLICY GROUP MEETING

#### 3. Introduction of Delegates

Chairman Der asked delegates and observers to very briefly introduce themselves, which they all did.

#### 4. Adoption of Agenda

The Agenda was adopted without change. Chairman Der, however, indicated that the agenda item on the Task Force on Capacity Building would be moved until after the lunch break in order to engage in discussion during lunch to reach closure on some issues.

#### 5. Review and Approval of Minutes from London Meeting

The draft Minutes of the previous Policy Group meeting held in London, United Kingdom, in October 2009, had been circulated for comment to the Policy Group prior to the meeting. The final draft, which incorporated comments received, had been posted on the CSLF website. The Minutes were approved without further change.

#### 6. Review of London Action Items

Barbara McKee, Director of the CSLF Secretariat, reviewed the status of the action items. She stated the following:

- Information from the report of the Task Force on Financing CCS was included in the report delivered to the G8 meeting in June 2010.
- The Task Force on CCS in the Academic Community has surveyed academic programs on CCS and will report on this in the Joint Meeting of the Policy Group and Technical Group.
- The Secretariat has reviewed the CSLF Charter to determine its implications for CSLF membership in the Global CCS Institute. The Secretariat found that the CSLF cannot be a member of the Global CCS Institute because it is not a legal entity and does not itself have any money to pay the fee for membership. The CSLF is already working closely with the Global CCS Institute and the two organizations are coordinating their activities. Chairman Der added that the CSLF and the Global CCS Institute have a very positive relationship and the CSLF is intensifying its activities with the Global CCS Institute.

#### 7. Consideration of Applications for CSLF Membership

Chairman Der asked Barbara McKee for the status of applications for Membership. In response, she stated that the CSLF had received an application for membership from the United Arab Emirates (UAE). The Secretariat has determined that this application meets the criteria for membership and recommends that the application be accepted. Consensus was reached to accept the application for membership of the UAE.

Once consensus was reached, the Secretariat received the signed Charter and showed the UAE delegate, Keristofer Seryani, to his seat at the meeting table. Chairman Der welcomed Mr. Seryani and invited him to make a statement. In response, Mr. Seryani introduced himself and expressed the UAE's appreciation to the Secretariat and Members for accepting the application and welcoming the UAE to the CSLF. Mr. Seryani further stated that CCS was very important to the UAE, and that the UAE was looking forward to collaboration through the CSLF.

#### **Policy Group Task Force Reports**

#### 8. Communications and Public Outreach Task Force Report

Barbara McKee, in the absence of the Chairman of the Public Outreach Task Force, noted that this Task Force had been very active over the past year and had taken into consideration requests by the Policy Group to provide information on many issues. The Task Force had developed DVDs and a communications kit and talking points on CCS for use by CSLF Members. This includes a standard speech and a Power Point presentation. The Task Force is also providing news to CSLF Members and stakeholders on a daily basis.

Bernard Frois of France and Wiktor Raldow of the European Commission praised the quality of work of the Task Force. In this context, Mr. Raldow asked for putting more emphasis on developing materials usable for direct contacts with the press and other media. Sizhen Peng of China noted that the Chinese Ministry of Science and Technology (MOST) now has a website on CCS in both Chinese and English and requested that the CSLF website provide a link to that Chinese site. The question was asked whether the Task Force planned to communicate directly with the public. The Task Force does not do that, rather, it provides information to be used by its Members.

Sergio Garribba of Italy asked whether the CSLF would have a presence at the COP16 meeting in Cancun. An effort is being made to have CCS recognized as a mechanism in climate change negations. In response, Ms. McKee stated that this is being discussed, but the CSLF had not yet been able to secure a space for its exhibit. She asked if there were countries that could provide a space at the exhibit. José Miguel González Santaló of Mexico stated that he would inquire as to whether the CSLF booth could be part of the Mexican exhibit and Jonathan Holyoak of the United Kingdom stated that he would check with the United Kingdom Carbon Capture and Storage Association.

Dr. Frois inquired as to how involved the Communications Task Force is with the media. In response, Ms. McKee stated that the Chair of the Task Force is a media person and is very engaged with the media, including sending news clips to the media.

#### 9. Capacity Building Task Force Report

Task Force Chairman Abdulmuhsen Alsunaid of Saudi Arabia reported on the Capacity Building Task Force. He noted that the CSLF Capacity Building Program Plan was approved at the Ministerial in London. Since then, the Secretariat asked the developing country Members for their needs and a meeting was held in Oslo with the proposed Financial Governing Council. Mr. Alsunaid said the Council has Members who have pledged or contributed to capacity building. Present at the meeting were Australia, with a contribution through the Global CCS Institute, Brazil, Canada, Mexico, Norway, Saudi Arabia, the Chair of the Task Force, the United Kingdom, and the Secretariat. The Governing Council will have oversight over financial aspects of the program and the Capacity Building Task Force will develop areas for capacity building.

Chairman Der invited comments from the participants in the lunch break meeting of the Governing Council.

Jonathan Holyoak stated that: "We have a really positive way forward and are looking forward to getting projects off the ground."

Robert Pegler of the Global CCS Institute stated that: "We had a very constructive discussion and resolved all outstanding issues. We now have a mechanism for both the

Council and the Task Force to work hand-in-glove and complementary and ensure that we can get the money out the door very quickly."

Tone Skogen of Norway stated that: "We are very pleased to get this program going and are happy to be participating in this program."

Sizhen Peng added that China appreciated the efforts of Capacity Building program and wants workshops to be held in China. He noted that China believes it is important to pay more attention to training and educational resources in order to attract more young talented people to be engaged in CCS.

#### 10. Financing CCS Task Force Report

Task Force Chairman Bernard Frois reported on the work of the Financing CCS Task Force. He noted that the Financing CCS Task Force was created at the Policy Group meeting last year as the successor to an earlier Task Force. The Task Force decided to address financing of commercial-scale CCS by investigating incentives and investment for CCS in developed and developing countries. Dr. Frois stated that the Task Force held two workshops on Financing, one in London and the other in Washington, with about 70 total participants involved in CCS from banks, insurance companies, governments, industry, and research. Major points of discussion in these roundtables included the need for a higher price on carbon dioxide (CO<sub>2</sub>), the needs for financial rewards for CCS, long-term liability, sharing of risks, and the need for debt financing through the bond market. The roundtable came to a number of conclusions, all of which highlight the different types of business risks, including potentially fatal flaws, faced by CCS.

Dr. Frois also said that the Asian Development Bank (ADB) gave four different presentations on various aspects of financing CCS in developing countries in the meeting of the Financing CCS Task Force the previous day. The ADB would also present its findings in the Financing Roundtable later in the meeting, including a recommendation for a fund for CCS in developing countries.

Dr. Frois stated that the Task Force is planning to undertake a study of where the "trigger points" exist for different types of financing for CCS. This will involve an analysis of several different funding models for CCS. Two Roundtables are proposed for 2011, one in Asia and one in Washington. Funding will be sought from sponsors and institutions. Other organizations are also to be engaged, including the G8/G20, IEA, development banks and industry.

In response, Chairman Der stated that the Task Force has gone from identifying issues to identifying what could be done next. The CSLF can look at the interplay between the market, policy and the technology to see how to reduce uncertainties and risks. Comments on the planned study were that it should be technology-specific; it should consider the impact on the delivered price of energy (such as electricity); it should cover all risks; different circumstances should be comparable; and it should the compare risks of CCS to those of other technologies. Daniel Lins of Brazil referred to a CCS project that is being developed at a Brazilian ethanol plant, which presents the advantage of converting the overall  $CO_2$  emission balance from the bioenergy production process into a negative one.

#### **Updates from Collaborating International Organizations**

#### 11. New IEA CCS Unit Overview and G8/G20 Report

Juho Lipponen of the IEA Secretariat, the Head of the IEA's new CCS Unit, described its activities and the report delivered by the IEA and CSLF to the G8 in Canada in June. He stated that CCS is not new at the IEA, and is part of the work of several different parts of the IEA. The IEA has many publications on CCS. In particular, the 2009 CCS Roadmap published by IEA has gained much attention as a "lighthouse" guide to what it will take to make CCS commercial. It is not just a technology roadmap, as it also covers a wide range of institutional factors. Another important report is the June 2010 report to the G8 developed with the CSLF.

Mr. Lipponen stated that the CCS Unit is now fully staffed. It includes the Head of the Unit, six analysts, and several other analysts elsewhere in the IEA. The CCS Unit is funded through a €10 million grant from the Global CCS Institute. The IEA is working on CCS, both with its members and with developing countries that are not members. There is overlap with the work of the CSLF and this requires coordination.

Mr. Lipponen noted that the IEA is also continuing with its work in the legal/regulatory area and is planning to write a document on best practices drawing on existing frameworks. This effort will involve a test pilot the IEA is hoping to start in Indonesia.

#### 12. Update on Global CCS Institute Work Plans

Robert Pegler, Senior Vice President (Europe) for the Global CCS Institute, presented an update of the Institute's work plan. He reiterated the need for the Institute, the CSLF, and the IEA to collaborate closely and that these organizations already have a good relationship. The central focus of the Institute is on accelerating the deployment of commercial-scale CCS projects. The Institute now had 263 members from both the private and public sectors from around the world. There are plans for eight offices throughout the world, four of which are already operating. Mr. Pegler noted that the Institute's work is on sharing knowledge, fact-based advocacy, and assisting projects. The Institute has already gathered an array of knowledge to be shared and will share it through various methods, including a new website that is about to go online. The overarching objective is to accelerate the broad deployment of commercial CCS. The projects-related strategy includes a strategic analysis of projects, direct support to projects and knowledge sharing. The Institute is also planning to embed expert at projects.

Mr. Pegler stated that the Institute has prepared a revision of the global stock take of projects that will be released in mid October. The number of fully integrated commercial-scale projects is expected to increase from 80 in the previous stock take to 85 in this most recent stock take. Mr. Pegler noted that the most recent stock take shows that CCS project development activity is underway around the world, especially for coal-fired power generation. On the other hand, other large industrial stationary emissions sources are significantly under-represented.

Chairman Der noted that the Institute's plan for embedding financial experts in projects could help the information sharing that was being discussed. He inquired who these financial experts were and asked the Institute and the Financing CCS Task Force to discuss this. Bernard Frois, Chairman of the Financing CCS Task Force, mentioned that the Task Force was already interacting with the Institute and welcomed this suggestion.

#### 13. Update on World Bank CCS Activities

Natalia Kulichenko, Senior Energy Specialist of the World Bank's Energy, Transport and Water Department, described the Bank's CCS work program. The World Bank now has a US\$8 million CCS Trust Fund, to which Norway contributed US\$6 million and the Global CCS Institute contributed US\$2 million. The two core elements of this program are capacity building and carbon asset creation in cooperation with leading international and bilateral initiatives, including the CSLF. The World Bank is working with other organizations doing capacity building in order to avoid duplication. Dr. Kulichenko stated that the work program has two components: country- or project-specific activities and regulatory, economic and financial instrument analyses. The US\$6.9 million project specific work will be devoted to projects in ten developing countries. One example is legal, regulatory, financial, and institutional analysis being done for a CCS project for oil shale production in Jordan. An element of the analytical work program will focus on the Balkans and Southern Africa regions. One aspect of this is examining the regulatory frameworks where the source is in one country and the storage is in another.

Dr. Kulichenko noted that one important aspect of World Bank activities is assessment of climate finance to accelerate CCS deployment, including examining financing methods for CCS in developing countries that may be alternatives to the Clean Development Mechanism (CDM). The World Bank has a number of financing tools available that may be applicable. This examination is expected to be completed in February 2011. Dr. Kulichenko stated that the World Bank would be interested in presenting the results of its work at the two CSLF Financing CCS Task Force meetings planned for next year and that the World Bank will also be having its own workshops in South Africa and the Balkans.

# 14. Update on the Clean Energy Ministerial Carbon Capture, Use and Storage (CCUS) Action Group

Debbie Stockwell, Head of the United Kingdom Department of Energy and Climate Change's International CCS team, described planned activities under this new initiative formed at the Clean Energy Ministerial (CEM) in Washington in July 2010. The CCUS Action Group is one of several initiatives launched at that Ministerial and is led by Australia and the United Kingdom. Ms. Stockwell noted that the initiative is intended to bring together governments, businesses, NGOs and institutions and that the goal is to build a high-level dialogue between government and business that has the flexibility to deliver action to meet the challenges. She stated that the aims of the Action Group's work program, which has just begun, are to:

- Generate greater political momentum to meet the challenge for CCS;
- Engage governments that set the policy framework and business that must invest in CCS:
- Engage both developed and developing countries; and
- Develop recommendations for Ministers at the next CEM in Dubai in April 2011.

Ms. Stockwell stated that the CCUS Action Group is committed to develop a global strategic implementation plan to set out recommendations to its Ministers. The development of this will in part be informed by a stock take of progress being developed by the Global CCS Institute. One area that has already been identified as a focus is assessing options for financing CCS in developing countries, which will be led by the World Resources Institute. To date, many governments, businesses, NGOs and institutes are involved. Ms. Stockwell stated that the CCUS Action Group does not want to

duplicate the work of others and wants to ensure that it complements the CSLF Ministerial in 2011, and that work plans and themes are currently being finalized.

Comments by delegates after the presentation focused on the need for coordination, avoiding duplication and not increasing the workload on Ministries. Ms. Stockwell responded that the CCUS is not trying to duplicate the work of other organizations, but is trying to help accelerate CCS and that the CCUS is a short-term group and not a long-term institution.

#### 15. Roundtable on Financing CCS

Bernard Frois, the Chair of the Financing CCS Task Force, moderated this roundtable, which consisted of several presentations and discussion.

#### Financing CCS in Developing Countries

Klaus Gerhaeusser, Director General (East Asia Department) for the ADB, provided context for the study undertaken by the ADB on financing CCS in developing countries. He stated that rapid growth in Asia has brought prosperity to people of Asia, but this brought environmental problems to the fore, especially climate change. The challenge is to strike a balance between growth and the environment through a low-carbon development path. New technologies will play a key role and CCS is particularly important because many of the countries in East Asia are coal-dependent.

Mr. Gerhaeusser stated that the ADB has been actively participating in international discussions to bring the latest CCS knowledge to the region and is a stakeholder in the CSLF and a member of the Global CCS Institute. To address the short-term barriers, the ADB has set up a dedicated CCS fund with a contribution from the Global CCS Institute. The ADB is also working with China. Early this year, the ADB approved funding for the Tianjin IGCC and to do a study of CCS at this site. The high costs of CCS are an especially high barrier in developing countries. Mr. Gerhaeusser stated that unless CCS is demonstrated in developing countries, these countries will not do CCS, and that it is also unlikely that the governments of these developing countries will finance CCS. The ADB report shows a path forward.

Ashok Bhargava, Director of the ADB's Energy Division, went through the key findings from the report of its two-year analysis of financing of CCS in developing countries done at the request of the CSLF. This analysis included both technical studies and financial analyses. The draft final report, which should be finalized in the next three months, was provided to Delegates at the meeting. Mr. Bhargava stated that CCS at this stage has weak or no support from developing countries, and that CCS is seen as only a mitigation technology and is not included in their low-carbon portfolio of technologies as it is perceived as a high cost, high risk investment proposition. He noted that the costs and risk profile must be improved with demonstrations in developing countries.

Mr. Bhargava stated that the ADB has conducted modeling of pre- and post-combustion capture plants in China and has estimated how much the electricity tariff has increased, which was substantial. The report based on this analysis contains a number of recommendations for various stakeholders. One conclusion is that a dedicated CCS funding mechanism is needed. In specific, a CCS US\$5 billion demonstration fund to support 10 to 12 CCS projects in developing countries, along with complementary policy support and institutional development is proposed. Mr. Bhargava mentioned that comments on the ADB draft report are welcome and are needed by early January 2011.

#### CSLF Incentives Registry Update

Jeffrey Price of the CSLF Secretariat described the results of the latest update of the CSLF Incentives Registry. The Registry is an on-line compendium of information on financial incentives for CCS in jurisdictions from around the world. Mr. Price stated that the Registry now lists 100 incentives of all types, which is an increase from the 73 reported to the Policy Group in June 2009. In addition, an Excel spreadsheet of the Registry linked to the online database entries is now available for download in order to make the Registry more readily searchable. The Registry shows that a number of different types of incentives are being implemented.

Mr. Price mentioned that most of the incentives in the Registry are in Europe, North America, and Australia, but there are some in other areas such as New Zealand and the UAE. On the other hand, there are almost none in developing countries. Most of the financial incentives being implemented are transitional incentives intended to incent demonstration projects. These include investment funds, loan guarantees, and various forms of government co-investment. Mr. Price noted that a few incentives, such as carbon taxes and cap-and-trade schemes, and are permanent and could provide value to commercial projects, but these have mostly set a price on reducing emissions that is well below what would be needed to make commercial CCS projects viable. A number of jurisdictions now have laws that transfer long-term liability from project owners to governments. The exact details of the incentives vary widely by jurisdiction.

#### European Commission Perspective on Financing

Wiktor Raldow gave the European Commission's perspective on financing. He explained that CCS will be incorporated into the European emissions trading scheme. The European Commission works with industry on CCS together with the Zero Emissions Platform (ZEP) and its Member States. The ZEP represents industry and other stakeholders. Mr. Raldow stated that more than  $\[ \in \]$  billion in the European Union's recovery plan will be spent on six CCS projects in power generation, one of which is in Poland. In addition, 300 million CO<sub>2</sub> allowances will be auctioned and used for CCS and innovative renewable demonstration projects. There will also be a network for knowledge sharing between different CCS demonstration projects.

#### Key Outcomes from CSLF Financing Roundtables

Andrew Paterson of the CCS Alliance described key outcomes from CSLF Financing Roundtable Workshops sponsored by the Task Force on Financing CCS. These workshops had a broad set of financing experts from many industries. The workshops emphasized the technical, market and regulatory risks, costs and uncertainties that need to be addressed. Considerable attention was paid to capital subsidies, loan guarantees and other forms of credit support. Liability clarity needs to be addressed. The scale of the challenge for climate change is in the trillion-dollar range, which means financing has to be done in the bond markets. In order to go to the bond market, the message has to be positive and the entire business will need to be considered. Mr. Paterson stated that the next step for the Task Force will be analyses to find trigger points for mobilizing financing. Several funding models need to be developed and will be considered and these will have to be sophisticated. Two roundtables are planned, one in Asia and one in Washington.

In the discussion that followed, Natalia Kulichenko noted that the CCS fund proposed by the ADB had exactly the same elements and the same mechanism that the Clean Technology Fund currently has. She suggested that instead of having a new fund, why not use an existing fund such as the US\$2 billion Clean Technology Fund. CCS is

currently ineligible for the Fund, but the donors to the Fund could make a change to allow CCS inclusion. Other delegates also noted that it would take time to establish such a fund proposed by the ADB and that it seemed very ambitious. Ashok Bhargava responded that even if CCS were included in a fund with energy efficiency and renewable energy, the money would likely not be used for CCS. Therefore, a separate fund is needed.

#### 16. CSLF Strategic Plan

Barbara McKee reported on progress under the CSLF Strategic Plan and its eleven Action Plans:

- 1. <u>G8 Recommendations</u>. The planned report was delivered to the G8 working closely with the IEA and Global CCS Institute (see Item 11);
- 2. <u>Technology Roadmap</u>. The 2010 Roadmap was completed by the Technical Group and will be reported on during the Joint Meeting on October 8<sup>th</sup>;
- 3. Incentives Registry. The Registry was updated as of August 2010 (see Item 15);
- 4. <u>Developing Country Financing</u>. The ADB report to the CSLF has been completed (see Item 15);
- 5. <u>Bridging the Financial Gap</u>. A report has been provided by the Task Force Chair (see Item10);
- 6. <u>Capacity Planning</u>. A report was presented by Task Force Chair and there are actions remaining (see Item 9);
- 7. <u>Capacity Building Academic Link</u>. A report will be presented by the Task Force Chair during the Joint Meeting on October 8<sup>th</sup>;
- 8. <u>Communications</u>. A report was presented earlier and there was a request for a communications roundtable (see Item 8);
- 9. <u>Stakeholder Engagement</u>. There are currently 285 stakeholders that have registered with the CSLF and the CSLF has agreed with Global CCS Institute that the Institute will keep a global calendar of CCS events;
- 10. <u>International Collaboration</u>. The CSLF will continue relationships with IEA, Global CCS Institute, World Bank, ADB, and MEF; and
- 11. <u>Promotion of CCS at Climate Change Negotiations</u>. No requests have been received.

Since much of the work planned in these areas has been completed, the Secretariat was asked to work with the various Task Force Chairs, and especially the Financing CCS and Capacity Building Task Forces, to update the Strategic Plan.

Further discussion ensued about coordination with the CCUS Action Group. It was decided that the Policy Group Chair is to engage the CCUS Action Group regarding coordination, following up on earlier discussions he has had.

During discussion of the work of the Communications Task Force, it was decided that a roundtable on communications should be held, possibly in conjunction with the next CSLF meeting.

Questions were raised in the discussion on the International Collaboration Action Plan about how the work of the new CCUS Working Group relates to that of the CSLF and what could be done to coordinate. Chairman Der explained that no CCS came out of the Copenhagen meeting on climate change. He stated that the purpose of this new initiative was to raise energy issues at very high political levels and the formation of the CCUS

Working Group put CCS at the same level as other clean energy options. He also stated that he had a conversation about these issues with Debbie Stockwell and that an agreeable path forward could be found.

Concerning the Promotion of CCS at Climate Change Negotiations Action Plan, Daniel Lins stated that Brazil opposes the linkage between the CDM and CCS. He offered that CDM should be used for other measures such as renewables and another financing mechanism should be used for CCS. Mr. Lins stated that Brazil wanted to use language such as that in the CSLF London Ministerial Communiqué and avoid references to Kyoto.

Sergio Garribba noted that there were many meetings coming up over the next year, including the Cancun meeting on climate change and the G8 the G20 meetings. Ms. McKee stated that Luke Warren of the United Kingdom Carbon Capture and Storage Association (CCSA) has offered the CSLF space in its booth in Cancun. José Miguel González Santaló stated that he will bring up CSLF representation with the organizers of the Cancun meeting.

#### 17. Planning for the CSLF Meeting in China

Chairman Der thanked China for agreeing to host the 2011 CSLF Ministerial.

Sizhen Peng stated that his Ministry had received approval from the State Council for holding the Ministerial. The Ministerial will be jointly organized by the Ministry of Science and Technology (MOST), the National Development and Reform Commission (NDRC), and the Ministry of Foreign Affairs.

Dr. Peng stated that China plans to establish a domestic organizing committee for the Ministerial. The venue will be in Beijing. The exact date has not been set, but the preferred date will be in September 2011. At least 200 to 300 attendees are expected from different sectors. MOST is still looking at hotels and conference centers in Beijing. A domestic organizing committee will be organized. The Minister of MOST will send out invitations to CSLF Member Ministers by the end of this year. A four-day event was being considered:

- Day 1: Task Force meetings
- Day 2: Policy and Technical Group meetings
- Day 3: Ministers meeting, CEO meeting, and press conference
- Day 4: Joint meeting of the Policy and Technical Groups

Dr. Peng also stated that China was open as to themes but is presently considering two themes for the Ministerial:

- R&D and policy issues related to CCS in developing countries; and
- Messages to the public that CO<sub>2</sub> is not a toxic material and could be used as a resource.

Barbara McKee stated that an International Steering Committee would work with the Chinese National Organizing Committee to develop themes and for planning of the Ministerial

Chairman Der asked the Secretariat to form the Steering Committee for the Ministerial. The Asian Development Bank, Italy, Norway, Saudi Arabia, the United Kingdom, and the World Energy Council volunteered to be on the Steering Committee. Australia, Canada, and the Global CCS Institute said they would consult with their home offices to determine whether they could participate.

It was also noted that Norway co-hosted the 2009 CSLF Ministerial in London and CSLF Members were asked to consider co-sponsoring the meeting.

#### 18. Election of Policy Group Vice Chairs

Barbara McKee noted that, with the membership of the UAE, the CSLF has now nearly doubled its membership since its founding. As a result, the Secretariat is recommending that the Terms of Reference and Procedure be amended to allow up to three Vice Chairs each for the Policy Group and Technical Group. This will broaden the leadership of the CSLF. After ensuing discussion, consensus was reached to modify the Terms of Reference and Procedures to increase the number of Vice Chairs to three for each Group.

Ms. McKee stated that the Secretariat had received nominations of China, Mexico, and Japan for Policy Group Vice Chairs and that the Members have been informed of these nominations. Consensus was reached to elect China, Mexico, and Japan. Each of the new Vice Chairs accepted. Chairman Der congratulated the new Vice Chairs on their selection.

Landi Themba of South Africa, as the outgoing Vice Chair, thanked the Members for the opportunity to have served in a leadership position and for the experience and exposure that it gave. He emphasized the importance of CCS to South Africa because of the large amounts of coal it uses. He also announced that South Africa had completed a carbon atlas that showed potential areas where carbon dioxide could be stored. Some of these sites are offshore.

Jonathan Holyoak of the United Kingdom, the other outgoing Vice Chair, also expressed his country's thanks.

#### 19. New Business

Abdulmuhsen Alsunaid stated that Saudi Arabia is proposing that the World Trade Organization (WTO) find that CCS goods and services be considered environmental goods and service eligible for reduced tariffs in international trade. He asked that the CSLF give a presentation to the WTO at its meeting in November explaining CCS and why it is an environmental good or service. This would be decided by the WTO during the first quarter of 2011.

Clement Yoong, consultant to the ADB, gave a presentation that assessed the trade barriers in relation to CCS in international trade negotiations at the WTO. The WTO, with 153 countries as members and 30 countries as observers, is the only international organization that directly addresses trade barriers. Mr. Yoong noted that this is important because trade liberalization would lower costs of CCS, incentivize innovation, and increase CCS deployment. He identified a number of trade barriers related to CCS, including:

- Lack of definition and Agreement on Environmental Goods and Services;
- Limitations of the Product Classification System;
- A common definition of CCS technology;
- High tariff prices on CCS technology;
- Non-tariff barriers;
- Technical barriers to trade; and

- Other barriers
  - High cost of CCS technology
  - Gross Domestic Product
  - Regulatory framework for climate change action

This was a new topic for most Policy Group delegates; several stated that they needed to check with their governments. The Secretariat was asked to work with Saudi Arabia and Mr. Yoong to develop a draft presentation to give to Policy Group delegates at the next day's Joint Meeting with the Technical Group so that they could discuss it with their governments. (Secretariat note: The draft presentation was provided to delegates at the Joint Meeting.) Delegates were requested to provide comments on this draft presentation by late October.

There was no other new business.

#### 20. Closing Remarks / Adjourn

Chairman Der thanked the delegates and stated that the next day's Joint Meeting of the Policy and Technical Groups would be held in the Polonia Ballroom.

## ACTION ITEMS ARISING FROM THE POLICY GROUP MEETING

Item	Lead	Action
1	Secretariat	Create a link from the CSLF Secretariat to the Chinese MOST website on CCS.
2	United Kingdom	Check whether CCSA can provide room in its exhibit at Cancun for the CSLF booth.
3	Mexico	Discuss possible CSLF exhibit at the Cancun meeting with Mexico Department of Energy.
4	Financing CCS Task Force	Undertake study on trigger points for CCS investments.
5	Financing CCS Task Force	Hold two workshops on financing CCS in 2011.
6	Financing CCS Task Force	Discuss information sharing related to embedded financial experts with the Global CCS Institute.
7	Financing CCS Task Force	Coordinate with World Bank on presenting information on their work on new methods to finance CCS at the two planned workshops in 2011.
8	Policy Group Chairman	Engage the CCUS Action Group regarding coordination.
9	Secretariat Task Force Chairs	Work with Task Force chairs to update the CSLF Strategic Plan, especially Financing CCS and Capacity Building.
10	Communications Task Force	Hold a communications round table meeting, possibly in conjunction with the next CSLF meeting.
11	Secretariat	Work with the UK Carbon Capture and Storage Association and possibly Mexico, regarding CSLF activities in Cancun.
12	Members	Send ideas for themes for the Ministerial to the Secretariat.
13	Members	Consider cosponsoring the China Ministerial.
14	Secretariat	Form steering committee for China Ministerial.
15	Secretariat	Draft presentation on CCS for the WTO and find presenter.
16	Members	Comment on the draft presentation to the WTO by late October 2011.