Carbon Sequestration leadership forum

CSLF-P-2009-32

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Minutes of the Policy Group Meeting

London, United Kingdom 12 October 2009

LIST OF ATTENDEES

Policy Group Delegates

Chair: Victor Der Australia: Margaret Sewell

Brazil: Daniel Falcon Lins, Claudia Vieira Santos

Canada: Ian Hayhow

China: Chen Linhao, Peng Sizhen

Denmark: Birgitta Jacobsen

European Commission: Eero Ailio, Wiktor Raldow France: Bernard Frois, Philippe Geiger Germany: Peer Hoth, Hubert H. Höwener

Japan: Noriaki Ozawa

Korea: Ga-Hye Yun, Sung-Chul Shin Mexico: José Miguel González Santaló

Netherlands: Hans Bolcher New Zealand: Roger Fairclough

Norway: Tone Skogen, William Christensen, Jostein Dahl Karlsen

Poland: Marek Weikto

Russia: Boris Reutov, Liudmila Orletskaya Saudi Arabia: Abdulmuhsen Alsunaid, Khalid Abuleif

South Africa: Muzi Mkhize (Vice Chair), Gina Downes, Elizabeth Marabwa

United Kingdom: Ruth Hampton (Vice Chair), Bronwen Northmore

United States: Jock Whittlesey

CSLF Technical Group

Trygve Riis (Chair)

CSLF Secretariat

Barbara McKee Richard Lynch John Panek

Kathryn Paulsgrove

Jeffrey Price

Observers

Australia: Peter Cook, Clinton Foster

Brazil: Norberto Medieros, Antonio C. Salmito Canada: Eric Beynon, Brent Lakeman, Wishart Robson

China: Xi Liang, Jia Li

France: Jean-Louis Gelot, Philippe Lacour-Gayet

Indonesia: Lobo Balia, Lida Mulyana, Hardiv Harris Situmeang Japan: Makoto Akai, Shingo Kazama, Mike Miyagawa,

Nobumichi Morishita, Tomohiro Sembongi

Korea: Chong-Kul Ryu, Chang-Keun Yi

Norway: Magnus Borgen, Paal Frisvold, Frederic Hauge,

Kristofer Hetland, Børge R. Sivertsen, Derek Taylor,

Poland: Elżbieta Wróblewska

Russia: Alexander Klimenko, Sergey Mikhaylov, Alexey Slepkov

South Africa Stan Pillay, Tony Surridge

Spain: Pedro Palencia

United Kingdom: Chiara Armeni, Milton Catelin, Jeff Chapman,

Simon Cran-McGreehin, Jane Desbarats, Jim Fitzgerald, Richard Haigh, Gardiner Hill, P.R. Holland Lloyd, Calem Hughes, Margaret Lemmerman, Bill Senior, Philip Sharman, Katherine Thomassen, David Vincent,

Luke Warren, Peter Wibberly, Mervyn Wright

United States: Chris Babel, Brenda Barnicki, Linda Curran, Robert Dahowski,

David Denton, J.P. Dutton, Darrick Eugene, Robert Gentile, John Grasser, George Guthrie, David Hawkins, John Hammond,

Jerry Hill, Tim Huskey, Jeffrey Jarrett, Yan Kishinevsky,

Arthur Lee, Raj Luhar, Andrew Paterson,

Maria-Dubravka Pineda, Edward Steadman, Justin Swift,

Geir Vollsaeter, Barry Worthington

GCSSI: Nick Otter, Chris Short

IEA: John Topper
IEA GHG: Tim Dixon
UNFCCC: Bert van der Plas
World Bank: Richard Zechter
World Energy Council: Elena Nekhaev

1. Opening Remarks

The Chair of the Policy Group, Victor Der of the United States, introduced himself and the two Policy Group Vice Chairs, Ruth Hampton of the United Kingdom and Muzi Mkhize of South Africa, and welcomed delegates and observers to the Policy Group meeting. He thanked the United Kingdom and Norway, the two co-hosts of the meeting.

2. Introduction of Delegates

At the invitation of the Chairman, new Policy Group delegates introduced themselves. Nineteen of the twenty-three CSLF Members were represented at the meeting.

3. Adoption of Agenda

The Agenda was adopted without change.

4. Review and Approval of Minutes from San Francisco Meeting

The Draft Minutes of the previous Policy Group meeting held in San Francisco, California, United States in June 2009 had been circulated for comment to the Policy Group prior to the meeting and the final draft, which incorporated comments received, had been posted on the CSLF website. The Minutes were approved without further change.

5. Review of San Francisco Action Items

Chairman Der called on Barbara McKee, Director of the CSLF Secretariat, to report on the status of action items from the Cape Town meeting of the Policy Group. All action items were reported to have been completed, except those which were of an ongoing nature, which were progressing. In particular, new incentives were in the process of being added to the CSLF Incentives Registry.

6. Consideration of Applications for CSLF Membership

Barbara McKee, Director of the CSLF Secretariat stated that Poland had completed the application process for Membership in the CSLF and that the application was in order. Upon motion by the United States seconded by Australia, consensus was reached to admit Poland as a Member of the CSLF. Marek Wejtko of the Polish Ministry of Economy presented a copy of the CSLF Charter signed by Waldemar Pawlak, Deputy Prime Minister and Minster of Economy, to the Secretariat. Mr. Wejtko was thereupon seated as the Policy Group delegate from Poland. Chairman Der welcomed Poland as a Member and asked the Polish delegate if he would like to say a few words. In response, Mr. Wejtko stated that carbon capture and storage (CCS) is important to Poland because the Polish economy was dependent on coal. He also stated that two new large-scale CCS projects are planned in Poland. Poland is seeking to participate in international collaboration on CCS and has joined the International Energy Agency (IEA) and Global Carbon Capture and Storage Institute (GCCSI) and now the CSLF.

7. Task Force Reports

Capacity Building

Abdulmuhsen Alsunaid of Saudi Arabia, the Chair of the Capacity Building Task Force presented the report from the Task Force. He noted that the Task Force had held two meeting in 2009, the first in San Francisco in June and the second in London, in October. He stated that CSLF capacity building activities would be coordinated with those of the GCCSI and IEA and would be driven by the needs of the countries in which capacity is to be built. Activities will depend on identification of resources available as outlined in the draft program plan.

Barbara McKee, Director of the CSLF Secretariat, described the CSLF Program Plan for Capacity Building and asked the Policy Group to approve the Program Plan. She stated that the mission of the Program will be to assist all CSLF Members to develop the information, tools, skills, expertise and institutions required to implement CCS demonstrations and then move rapidly into commercial operation. CSLF capacity building activities will use a country-led process in which each country defines its own needs. Pilot activities will take place in one or two countries and the most successful practices will later be implemented in a wider set of countries. No decision has yet been made as to which in which countries to implement the pilot activities. The Policy Group Capacity Building Task Force, composed of Policy Group delegates will provides overall guidance to the Capacity Building Program.

The Capacity Building Financial Governing Council, composed of representatives of significant donors will oversee financial aspects of Capacity Building Program.

Tone Skogen from Norway and Ruth Hampton from the United Kingdom stated that their countries would contribute to the Capacity Building Plan as proposed and Chairman Der stated that the United States would continue to contribute. Consensus was reached to approve the Program Plan for Capacity Building.

Financing CCS

Bernard Frois of France, Chair of the Task Force on Financing CCS, stated that the Task Force recognized that widespread global deployment of CCS will require that CCS move from research status through demonstration projects to commercial operation. Diverse projects will therefore need to be financed, constructed, and operated, and in different markets.

The Task Force believed that it needed to work with industry, the financial community and other stakeholders to formulate and promote viable business models for the commercial deployment of CCS. Different business models may be required because of differences in industries, energy markets and regulatory regimes; but all business models will need to provide an appropriate balance of risks and rewards to all participants, including the public. Business models will need to adapt as the technology matures and the constituent businesses evolve.

Accordingly, the Task Force asked the Policy Group to endorse the following:

The CSLF will engage with the financial community, industrial sectors and other stakeholders to formulate viable commercial models for commercial deployment of CCS.

After discussion, consensus was reached to accept this proposal and to request that the Task Force prepare a report on this topic that could be presented to the G8 at their 2010 meetings in Canada. This would require the report to be completed during the first quarter of 2010.

CCS in the Academic Community

Tim Dixon of the IEA Greenhouse Gas R&D Programme (IEA GHG) gave the report from this Task Force. The purpose of this new Task Force is to encourage more involvement in CCS by the academic community. The Task Force will review the status of CCS in academic programs to determine what is needed. This effort will build on work done and in progress by the IEA GHG on academic programs the United Kingdom and North America. The work will also consider programs in the European Union and Australia. The report will identify where these programs stand, what is required and the gaps between needs and actual programs. It will make recommendations to the Policy Group about what the CSLF can do.

Communications

John Grasser of the United States, Chair of the Communications Task Force, gave the report of this Task Force. He reviewed policies that had been put in place to ensure appropriate links to outside sites in the CSLF website and for CSLF endorsement of outside events. Links to a website will only be allowed if they are relevant, support the CSLF mission, are not biased, and do not endorse products. A transparent process for co-sponsoring events with the CSLF has also been developed that also ensures that the event is consistent with the goals of the CSLF.

Mr. Grasser also described message development for CCS. Extensive literature indicates that the public is concerned about several issues related to CCS; namely, why CCS is

needed, its safety, cost, scale and who takes responsibility for potential liabilities. The CSLF will develop a series of high-level question-and-answer papers (InFocus) on topics relevant to these concerns. Each will be a 1-2 page document written for a general audience.

In response, Bernard Frois congratulated the Task Force and indicated that they were undertaking communications activities. Daniel Falcon Lins indicated that Brazil hosted two events in which the CSLF was mentioned; Xi Liang noted that China has created a website on CCS technology; and Muzi Mkhize stated that South Africa has also held a CCS event. The Chair encouraged the Task Force to be in contact with those countries reporting communications activities to incorporate those into the communications and outreach plan.

8. Report on Workshop on Bridging the Commercial Gap

Barbara McKee, Director of the Secretariat, described the outcome of this workshop, which was held in New York on 29-20 September 2009. The workshop was cosponsored by the CSLF, the IEA Working Party on Fossil Fuels, the GCCSI and the IEA Coal Industry Advisory Board. The workshop developed a number of recommendations to advance commercial CCS. These recommendations were:

- 1. <u>Identify, Announce and Promote Joint Government-Industry Partnerships</u>. Governments should identify, announce and promote pioneer demonstration project implementation partnerships with industry by 2010.
- Reduce Non-Financial Barriers. Governments should take action to encourage first
 movers and moderate investment risks for pioneer demonstration projects, which may
 include: project-specific agreements; regulatory frameworks; long-term liability
 indemnification and other mechanisms.
- 3. <u>Provide Adequate Public Funding</u>. Governments should recognize the first-of-a-kind nature of pioneer demonstration project deployment and provide a level of capital and operational funding sufficient to bridge the commercial funding gap.
- 4. <u>Develop and Promote International Cooperation of Best Practices.</u> Governments should work with industry partnerships to develop and promote international cooperation of CCS best practices and knowledge sharing from publically funded pioneer demonstration projects.
- 5. <u>Build Developing Country Capacity</u>. Developed countries should provide the technical and financial support necessary to build demonstration projects in developing countries.
- 6. <u>Continue Action on Non-Technical Deployment Issues</u>. The CSLF, in cooperation with the IEA and support from the GCCSI, should continue to analyze non-technical issues associated with CCS deployment and make more detailed and specific recommendations to governments in advance of the 2010 G-8 Summit in Canada.
- 7. Conduct Community Outreach and Provide Scientifically Accurate Information on CCS. Governments should actively reach out to communities to build general awareness of the integral role CCS must play in achieving emissions reductions targets.

Jostein Dahl Karlsen of Norway, Chairman of the IEA Working Party on Fossil Fuels, which co-sponsored the workshop, also gave his perspective on the findings of the workshop. He stated that recognition of the commercial gaps was key to commercialization and that the recommendations were a work in progress. The role of governments is highly critical. The main obstacle identified was that market-based mechanisms were not sufficient for deployment and that public incentives are necessary for demonstrations. Regulatory clarity was also required on permitting, transfer of liability and ownership of pore space. Clarity is

also required on costs. Mr. Karlsen also saw the need for CCS demonstration projects as a global requirement.

Mr. Karlsen stated that the IEA Working Party of Fossil Fuels would continue working to support the launch of 20 large-scale CCS projects by 2010 and to bridge the financial gap to commercial CCS. It will build on tracking criteria developed earlier in the year. The next step will be to scope the structure and strategy of the report to the G8 in November, followed by an international peer-review workshop in March. Progress on the 20 demonstration projects will also be tracked.

9. Report and Approval of Proposed Projects

Trygve Riis, Chairman of the Technical Group, stated that ten projects were reviewed by the by Technical Group and are recommended for recognition:

- CCS Northern Netherlands Project nominated by the Netherlands and Norway;
- CCS Rotterdam Project nominated by the Netherlands and Germany;
- <u>Demonstration of an Oxyfuel Combustion System</u> nominated by the United Kingdom and France;
- <u>European CO₂ Technology Centre Mongstad Project</u> nominated by Norway and the Netherlands;
- Fort Nelson CCS Project nominated by Canada and the United States;
- Heartland Area Redwater Project (HARP) nominated by Canada and the United States;
- <u>Lacq CO₂ Capture and Storage Project</u> nominated by France and Canada;
- Storage of CO₂ in Limburg Coal and Sandstone Layers Project nominated by the Netherlands and France;
- TXE Carbon Management and Gasification Project nominated by the United States, Canada, and France;
- ZeroGen Project nominated by Australia and Japan.

Muzi Mkhize noted that some of these projects may have major milestones after 2013 and asked for clarification. Mr. Riis stated that this was discussed in the Technical Group meeting. He noted that information on the achievements to 2013 was requested in the application form, but there was no requirement that the project be completed prior to 2013. All of the recommended projects will have valuable outcomes prior to 2013. This will be discussed in the next Technical Group meeting.

The Policy Group reached consensus to recognize all ten projects.

10. Review of Major Economies Forum

Margaret Sewell of Australia provided a description of the Major Economies Forum (MEF) paper on Carbon Capture and Storage. The MEF has agreed to aggressively drive the deployment of low carbon technologies. As part of this effort, technology action plans are being developed for the MEF on these technologies, including one on CCS. Others plans are on smart grids; high-efficiency, low-emissions coal; wind; solar energy; and biofuels.

The CCS paper was initially drafted by Australia and the United Kingdom and eight other countries that are Members of the CSLF are also working on it. The CCS paper notes the disparate potentials for CCS of different countries and draws upon the CSLF Technology

Roadmap. It will address both geologic storage and beneficial reuse, but will note the limitations of beneficial reuse. The goal is to have all of the papers to the MEF Ministers by 15 November 2009.

This description of the MEF activity on CCS was intended solely to inform the CSLF Policy Group and no decisions were required of the Policy Group with regard to MEF.

11. Consideration of the CSLF Joining the GCCSI

Barbara McKee noted that the CSLF Secretariat had received an email from Nick Otter, CEO of the Global Carbon Capture and Storage Institute (GCCSI), asking that the CSLF join the GCCSI and requesting a seat at the table of the Policy Group. When asked for his comments, Mr. Otter stated that this request follows up on a section of the CSLF Strategic Plan that calls for collaboration with other international organizations. Due to funding from the Australian government, the GCCSI can bring substantial resources to bear on many CSLF actions. The GCCSI currently has about 160 members, of which about 25 are governments. Mr. Otter stated that the GCCSI and CSLF need to be a lot sharper and cleverer in their collaboration and the best way to do that would be through a reciprocal arrangement of some sort between the two organizations. Mr. Otter also noted that while the CSLF cannot be a member of the GCCSI, it can be what he termed a "participating organization"; what is being sought is a reciprocal arrangement where the CSLF would be invited to attend the various activities of the GCCSI and the GCCSI being invited to participate in CSLF Policy Group and Technical Group activities.

During ensuing discussion, questions were raised about whether each organization had the legal standing to be a member of the other, especially since the CSLF did not have a legal personality. Mr. Otter stated that he was aware of the problem and that is why he proposed that the CSLF be a participating organization, not a member. Participating organizations take part in GCCSI activities, but are not members. The GCCSI now has several participating organizations.

At the suggestion of Chairman Der, consensus was reached that possible roles of the CSLF and GCCSI in each other's organizations are to be are to be reviewed based on their charters. The Secretariat was tasked with undertaking this assessment for the CSLF.

12. Status of Preparations for CSLF Ministerial Conference IEA Activities Update

Bronwen Northmore of the United Kingdom reviewed plans for the following day's CSLF Ministerial Conference. She stated that this will be the third Ministerial and that there would be a large number of Ministers attending, which is an indication of how far the CSLF has come. She noted that the title of the conference, "Accelerating the Commercialisation of CCS – CSLF Leadership through International Collaboration," would particularly be appropriate due to its inclusiveness, the centerpiece of which would be the CEO-Ministerial Roundtable in the morning. Ms. Northmore also noted that the launch of the CSLF Technology Roadmap would be significant, as would be the links between developed and developing countries and between the CSLF and other multilateral organizations. She thanked the steering committee and stated that over 300 delegates were expected, including Ministers.

Tone Skogen of Norway, the co-host of the Ministerial Conference, thanked the United Kingdom and the Secretariat for their efforts on the Ministerial.

13. Review of Draft Ministerial Communiqué

Chairman Der stated that much work and negotiation had taken place over many months to develop the wording of the Ministerial Communiqué. He proposed that the communiqué now be accepted as final. In response, Peer Hoth of Germany raised an issue with one of the clauses in the Communiqué, which was supported by several other delegates. Dr. Der proposed that this issue be resolved during discussions among concerned Members during the lunch break immediately following the Policy Group meeting. This proposal was accepted by consensus.

14. New Business

There was no new business.

15. Date and Venue of Next Meeting

Chairman Der announced that the date and time of the next meeting of the CSLF Policy Group had yet to be determined.

16. Closing Remarks/Adjourn

In his closing remarks, Chairman Der thanked the delegates for their hard work and stated that he was looking forward to the Ministerial conference the next day.

ACTION ITEMS ARISING FROM THE POLICY GROUP MEETING

Item	Lead	Action
1	Secretariat	Implement the Program Plan for Capacity Building
2	Task Force on Financing	Develop report on financing CCS for the G8 meeting during the first quarter of 2010.
3	Task Force on CCS in the Academic Community	Survey academic CCS program programs to determine needs and report to the Policy Group
4	Secretariat	Review the CSLF Charter to determine its implications for CSLF membership in the GCSSI