Carbon Sequestration leadership forum

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Re-energizing Global Momentum for CCS and Identifying Key Actions Needed for CCS Deployment

Communiqué
7 November 2013

We, the Ministers and Heads of Delegation of the CSLF Members, are convinced that the research and development (R&D), demonstration and global deployment of Carbon Capture and Storage (CCS) must be accelerated. CCS is one of the low-carbon technology options critical to the global quest to reduce greenhouse gas emissions, and can significantly reduce carbon dioxide emissions from both coal and gas-fired power plants and a range of industrial processes including refineries, the chemical sector, and cement and steel manufacturing. Significant progress has been made it the development of CCS. There are now 12 projects in operation that have the capacity to prevent 25 million tonnes of CO_2 reaching the atmosphere each year but more needs to be done. We are committed to taking necessary actions individually and collaboratively to promote the further development and deployment of CCS.

Building on valuable experience gained during the past decades, the next seven years are critically important for creating the conditions for CCS to be ready for large-scale deployment by the end of the decade. Our common goal is to ensure that the conditions are right for all CCS projects currently under construction or in advanced stages of planning to be completed, and we must increase the number of new large CCS demonstrations by 2020 to expand commercial deployment in the 2020's.

We met today to discuss and address the key challenges facing CCS and especially to identify activities necessary to support and accelerate further R&D, demonstration and deployment during the next seven years. The CSLF is the world's longest established multinational and only governmental CCS forum and this year celebrates its 10th year of operation. While it is clear that significant progress has been made on CCS, significant challenges remain, but these are challenges that we can—and will— overcome.

Key Actions Needed for CCS Deployment:

1. We will encourage the development of financial frameworks and incentive mechanisms to drive near-term demonstration and deployment of CCS and allow CCS technologies to compete fairly with other low carbon technologies. This may include pursuing the development of market-based incentives and conditions conducive for mobilizing private investment in CCS. This may also build upon existing frameworks and structures, such as those under the UNFCCC, including its technology mechanism, the Green Climate Fund, and the Clean Development Mechanism.

2. We will further develop workable CCS demonstration and deployment strategies in both the power and industrial sectors, recognizing that without CCS, the cost to meet greenhouse gas reduction goals will be significantly higher. We take note that the IEA in its recent report *Redrawing the Energy-Climate Map* points out that the cost of "delaying CCS deployment by ten years would increase the cost of decarbonisation in the power sector by $ 1 trillion." (IEA 2013, p. 43). A comparable increase of decarbonisation costs in the power sector under a scenario of delayed CCS deployment has been

assessed in the European Commission's analysis underlying the "Roadmap for moving to a competitive Low Carbon Economy in 2050".

3. We stress the vital importance of global coordinated efforts on coherent and optimal CCS R&D and demonstrations, and will actively seek and support such opportunities through bilateral and multilateral collaboration with other key bodies and organizations including the IEA, the IEA GHG program, and the GCCSI. We believe that the increasing number of such collaborations reflects the growing global recognition of the criticality of CCS and view such collaborations as complementary to the CSLF. Additional collaboration could be particularly rewarding in areas such as advanced CO_2 capture technologies that are key to reducing CCS cost broadly, and in industrial applications such as refineries, chemical industries, steel and cement.

4. We will continue to establish permitting frameworks that will ensure the safety and integrity of integrated CCS systems, and eliminate obstacles for their demonstration and deployment. We also stress that developing appropriate laws and regulations, including those regarding long-term stewardship and liability, is key to ensuring public confidence.

5. We recognize the need for pre-commercial geological storage validation and encourage cooperation between countries to identify and assess shared geological storage resources and develop plans for their orderly development, including development of associated transportation systems. We reaffirm the need for countries to make the necessary and timely investment in R&D on lower-cost, carbon capture technologies most relevant to their CO_2 mitigation activities.

6. We will strengthen our national, regional and international efforts to improve understanding among the public and stakeholders of CCS technology and the importance of its demonstration and deployment.

7. We will support efforts to grow capacity in CCS and foster appropriate steps in knowledge sharing and technology transfer.

The Importance of CO_2 Utilization Coupled with CCS (CCUS)

CO_2 utilization, the "U" in CCUS, has received increased attention recently, largely because of the potential to accelerate CCS by favorably impacting economics of commercial-scale projects. This is particularly true for CO_2 Enhanced Oil Recovery (EOR). While not an option for CO_2 storage in all countries, the US, Canada, and China are pursuing CCUS demonstrations featuring EOR that seek both the financial return and additional resource recovery these projects make possible. There are other technologies associated with planned demonstration projects and under consideration that can add commercial value.

The CSLF will encourage the creative and economically beneficial, environmentally and climate-friendly use of CO_2 by disseminating relevant information supplied by its members, and recognizing new projects that deploy CCUS approaches with significant market and CO_2 abatement potential.

Importance of Stakeholder Involvement

Supportive and engaged stakeholders in industry, society and the academic community are critically important to the development and commercial deployment of CCS. While the CSLF is a means of international collaboration by governments, collaboration at the international level between governments and industry is also vitally important. We applaud the efforts of stakeholders to advance CCS and to be involved in CSLF activities. We strongly encourage their continued involvement in CSLF.

Building on the Success of the CSLF

Ministers recognize the success of the CSLF in providing governments with an international forum to collaborate and create shared commitments to CCS research, development, demonstration and deployment. This includes CSLF initiatives to:

- Share information internationally on important CCS projects;
- Share information internationally on important policy initiatives and legal and regulatory developments in member countries;
- Build the capacity for CCS in the developing country CSLF Members;
- Explore methods for financing CCS projects, including in developing countries; and
- Develop global roadmaps for research, development and demonstration of CCS technologies.

We are pleased to announce our recognition of 5 additional CCS projects, making a total of 43 CSLF recognized projects sharing their results globally.

We commend the CSLF's capacity building initiative for successfully supporting 13 projects in four developing nations.

Moving Forward: Next steps for CSLF and its members

The next steps for CSLF are to enable the key actions needed for CCS deployment, including pursuit of several strategic multi-national initiatives that will coordinate RD&D to leverage time and investments by effectively sharing knowledge and technology through cooperation. The expected outcomes of these next steps are to move CCS forward by: positioning CCS as a competitive and deployable low-carbon technology; attracting investments; providing information on permitting frameworks for the safety and integrity of integrated CCS systems; and thus enhancing the capacity growth in CCS. These steps will help to resolve barriers for successful implementation of CCS projects at a time of significant global economic challenge, and help to streamline global collaborations on CCS development.

The CSLF discussed a range of policy issues concerning actions where international collaboration can advance CCS globally. We charged the Policy Group to establish a subcommittee to further discuss these issues and to identify and prioritize a focused set of collaborative actions where the CSLF could add the greatest near-term value. The subcommittee will report through the Policy Group to the CSLF by January 2014 with recommendations for the CSLF to take forward and how, during 2014 and beyond.

The CSLF will promote and help coordinate pilot-scale demonstrations of promising low-cost carbon capture technologies through collaborative initiatives such as the CCS International Test Center Network, recently established to facilitate the sharing of knowledge and expertise amongst the world's carbon capture test centers. These test centers enable long-term, independent validation and verification of advanced capture technologies under real-world conditions, and thus play a vital role to bridge the gap between R&D and commercial deployment.

Recognizing there may be opportunities for joint projects worthy of shared endorsement and commitment, the CSLF will examine potential options, make specific recommendations, and take appropriate actions needed to facilitate productive collaborations. Of particular interest are onshore and offshore geologic storage options, since a diverse suite of such options will be necessary for widespread global deployment of CCS.