



PROJECT REGISTRATION FORM

Project Number: CFE-09-17	Task Force: Cleaner Fossil Energy		
Title of Project: Guidelines for Safe and Effective Carbon Capture and Storage: Building Regulatory Capacity			
Lead Partner Country: China/United States			
Participating Partner Countries and Organizations: Tsinghua University, World Resources Institute, United States			
Project Location: Beijing, China			
Project Manager Information <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> Name: Mars Hanna Organization: U.S. Department of State Address: 2201 C Street N.W. Washington D.C. 20520 </td> <td style="width: 50%; border: none;"> Phone: 202-647-6741 Fax: 202-647-0191 Email: HannaSM@state.gov </td> </tr> </table>		Name: Mars Hanna Organization: U.S. Department of State Address: 2201 C Street N.W. Washington D.C. 20520	Phone: 202-647-6741 Fax: 202-647-0191 Email: HannaSM@state.gov
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Project Start Date: 9/22/08	Proposed Project End Date: 9/30/2010		
Description of Project: <p>In China, there is considerable research on and interest in both the technical and geological aspects of CCS, but as in the United States, developing a regulatory infrastructure has lagged behind. Tsinghua University's Low Carbon Energy Laboratory sees an opportunity to both develop guidelines for CCS and to engage policy makers to understand why these regulations will be needed and the advantage of preparing them simultaneously with the development of the technical capacity.</p> <p>The proposed activities will be to engage CCS experts and stakeholders to build capacity for safe geologic storage of CO₂ through the establishment of Guidelines. The effort will encompass all stages of a CCS project, including capture, transport and storage. Substantial effort will also be placed on collaborative development of guidelines for ensuring safety over the long term and developing regulatory recommendations and guidelines for long-term stewardship of CCS sites.</p> <p>The expected outcomes for this effort will culminate in publication of document that outlines a set of guidelines for safe and effective CCS in (including capture, transport, sequestration and long-term responsibility) based on input from steering committee and stakeholders. A framework for long-term stewardship of CCS sites will also be developed. Together, the publication of</p>			



guidelines and a framework for the post-closure stewardship phase, developed by Chinese and U.S. experts will be significant in moving CCS technology deployments forward by outlining clear, understandable guidelines and best practices and building confidence in the ultimate safety of CCS.

Phase I

During the first phase (year one) primary activity will be translating the WRI CCS guideline document into Chinese and identifying gaps and information needs for China's CCS guidelines. Importantly, there are differences in national interpretation of issues surrounding long-term responsibility for the site as well as a unique national environmental regulatory and policy context which should be reflected in Chinese guidelines.

Following translation, a steering committee of Chinese experts in CCS technology and legal frameworks with an international advisory group will be established. The experts will represent academia, government, industry (including financial/insurance as well as fossil energy), and NGOs. This group will first visit the U.S. to study the CCS regulatory environment and guideline development, then meet in China to develop guidelines and assist both Chinese participants and the US advisory group in understanding the specific Chinese circumstances. The study tours will serve the important role of developing a joint understanding of the differences in potential CCS deployment pathways between the countries. A workshop will follow each study tour during which draft guidelines will be discussed and key issues vetted.

Tsinghua University will host a series of stakeholder meetings in China to facilitate dissemination of the guidelines and solicit feedback from stakeholders.

Phase II

During the second year, the effort will focus on defining recommendations for the postclosure stewardship phase. This will include analysis of the different approaches being taken by many countries and propose an approach for handling the regulatory and legal implications of long-term geologic storage of CO₂ in China.

The steering committee will convene twice during the second year for targeted discussions regarding the technical and legal requirements needed for completing a CCS project safely. These issues include criteria for demonstrating that the CO₂ that has been injected is stable and secure, financial responsibility mechanisms, and protocols for postclosure stewardship.

Based on the combined results from the steering committee workshops as well as the in-depth analysis, a set of recommendations for the technical and legal aspects of postclosure stewardship will be published during the second project year.

Project Objectives: To build capacity to speed the demonstration of CCS technologies by defining recommended guidelines and best practices for safe and effective CCS



Project Deliverables:

Phase 1:

- Study tours for Chinese delegation to U.S. and a U.S. delegation to China to enhance understanding of national context and exchange information.
- Workshops held as part of each study tour as well as by web during the interim provide input for collaboration and vetting of the draft guidelines by experts from different disciplines/perspectives.
- Effort will culminate in publication of document that outlines a set of guidelines for safe and effective CCS (including capture, transport, sequestration and longterm responsibility) based on input from steering committee and stakeholders.

Phase 2:

- Detailed analysis of the different approaches to technical and legal issues during the post-closure stewardship phase will provide a resource to an international community grappling with these issues.
- Steering committee meetings focused on the legal and technical aspects of postclosure stewardship will yield information sharing and enable the development of a framework for addressing the post-closure phase of a CCS project.
- Publication of guidelines and a framework for the post-closure stewardship phase, developed by Chinese and U.S. experts will be significant in moving post-closure stewardship discussions forward by outlining clear, understandable guidelines and best practices.

Project Milestones:

Milestone Activity Timeline

Phase I

- Translating U.S. Guidelines into Chinese - 6 months from project start
- Steering Committee established - 1 month from project start
- Phase 1 Steering Committee meeting in U.S. - 3 months from project start
- Phase 1 Steering Committee meeting in China - 8 months from project start
- Publication of Chinese Guidelines for CCS - 12 months from project start

Phase II

- Stakeholder meetings in China - 12-15 months from project start
- Phase II Steering Committee meeting in U.S. - 17 months from project start
- Phase II Steering Committee meeting in China - 22 months from project start
- Analysis of different national approaches complete - 17 months from project start
- Publication of post-closure stewardship guidelines - 23 months from project start

Resources:

US\$1,062,620

Other Information:

