CCS and Emerging Economies Asian Development Bank Activities

CSLF Policy Group Meeting San Francisco, 29 June 2009







Overview

- CCS Climate Change Developing Asia
- ADB approach to bring forward CCS demonstration in Asia
- Working with CSLF status of activities
- Related Activities in PRC
- Way forward







Asia is the largest coal consum in the World and will continue to be the largest incremental GHG emitter

Low per-capita energy consumption and continued strong economic growth will maintain the rapid energy demand growth momentum in the region

Coal dependency of the region will continue. China alone will add 1,000 GW new generation capacity; 70% of it coal-based

CCS is the only technology on the horizon that can potentially decouple large coal-based capacity addition from GHG growth



Bringing forward CCS demonstration in developing Asia : ADB approach



- Partnerships: ADB is a stakeholder in CSLF and has become a founding member of Global CCS Institute, Australia
- Selectivity and focus: select target countries based on their technical readiness and the potential for large-scale replication
- Lower transaction cost provide grant support to lower pre-investment decision making barriers. Seek innovative financing tools and approaches.



Working with CSLF: Analysis of Key Policy Issues and Barriers



- A technical assistance (\$350,000) is currently underway
- Aims to recommend a suitable financing road map for CCS demonstration projects in emerging economies
- Key issues being examined:
 - Intellectual property rights (IPR)
 - Innovative low-cost financing approaches
 - Classification of CCS in WTO
 - Enabling policies for attracting private investment







- Approved 7 May 2009
- Experts for IPR and financial issues, recruited and started their work
- Seeking two more experts a technical expert, and a trade specialist is expected to be signed up soon
- A draft report expected by end August 2009





Relevant activities in China

ADB is actively engaged with Greengen and NDRC (Dept of Climate Change). The Greengen's three phase approach is as below

Stage I 2006-2011

- 250 MW IGCC power plant
- 2000 t/d gasifier
- GreenGen laboratory

Stage II 2012-2014

- Optimize gasification technology
- R&D on CCS technologies
- Preliminary work of GreenGen demo.

Stage III 2014-2016

- 400MW GreenGen demo. power plant
- Operate with near zero emissions
- Prove the economic viability



Current Status of 250 MW Tianjin IGCC Project and its financing



- Included for ADB financing in 2009; all national approvals in place; NDRC approved it in June 09.
- The Project construction is expected to be formally launched on 10 July 2009; expected completion 2011
- ADB financing: expected \$150 m loan + \$5 m grant.
 Grant support is also being provided for CDM documentation.



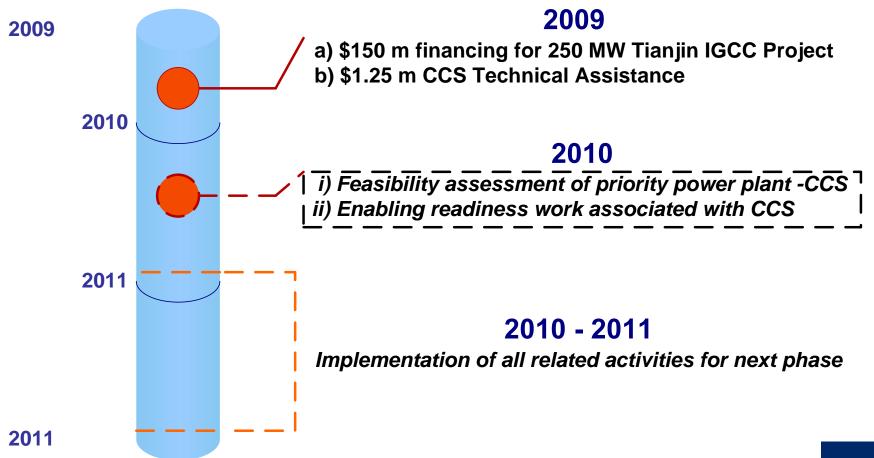




- The capacity development TA (\$1.25 m) approved on 22 May 2009
- The TA aims to prepare a draft strategy for CCS deployment in PRC; in particular, it aims to
 - Develop a road map for CCS demonstration
 - Recommend enabling policies, legal and regulatory framework
 - Identify priority sites and financing needs
 - Strengthen capacity in critical areas
- NDRC (Department of Climate Change) is the Executing Agency and Greengen is the Implementing Agency



Overview of future CCS activities in PRC





Looking ahead about CCS in Emerging Economies



- CCS demonstration remains a challenge but a start has been made
- CCS demonstration will require concessional financing a targeted fund has to evolve.
- Urgent need to define CCS ready so that carbon lock in can be avoided; differentiated approach may be required – CCS ready in some cases and countries compared to CCS demonstration and deployment.



For further details



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