

***Demonstrating CCS
in the EU and beyond***

**STRACO2 and COACH workshop
on CCS regulation
Beijing, 18 March 2009**

**Magnus Gislev
European Commission Delegation in China**

- Demonstrating CCS in the EU: legally enabling and incentivising demonstration of CCS
- The importance of global demonstration: EU assistance to emerging economies and developing countries

- Legal framework: EU CCS Directive agreed December 2008
- Demonstration programme:
 - 10-12 demo plants in Europe by 2015 (CCS Project Network)
 - Financing and incentivisation through EU ETS
 - Additional finance for 5 plants proposed through EU Economic Recovery Plan

- Enabling approach
 - Directive on geological storage sets environmental rules and liability requirements
 - Emissions captured and stored are recognised as not emitted under the Emissions Trading Scheme
 - Companies decide whether to use CCS on the basis of conditions in the carbon market
- Capture-ready assessment required to avoid lock-in of high-emissions technology
- No mandatory CCS at this stage
 - Let the market work: The revised ETS will ensure a robust carbon price and action on demonstration will bring CCS costs down
 - Review once CCS demonstrated to be safe and economically feasible

- Enabling legal framework sets out liabilities covered
 - Corrective measures for any leakage (geological storage directive)
 - Surrender of allowances under the ETS to cover any leaked emissions
 - Liabilities under the Environmental Liability Directive
- Site transfers to the state when injection has ceased and site has progressed towards safe condition:
 - All available evidence indicates that stored CO₂ will be completely and permanently contained



Why should the EU work with developing countries on CCS?

- Coal continues to play significant role in power generation ►► CCS is an important mitigation option
- Need to facilitate early deployment of CCS technology in developing countries in order to reap the benefits (GHG emissions reductions, improved air quality), increase experience and drive down costs

EU-China Cooperation on Near Zero Emissions Coal (NZEC)

- 2005 EU-China Summit declaration on climate change
- Two complementary MoU with associated projects on Phase I (R&D):
 - China-UK MoU (Dec 2005) → UK NZEC Assessment (£3.5M) – kick-off 2007
 - China-EC MoU (Feb 2006) → COACH (€1.6M) – kick-off 2006, other projects (GeoCapacity, MoveCBM, Cachet and STRACO2) (€3.4M)
- Key Chinese Partners are Ministry of Science and Technology (MOST) and the Administrative Centre for China's Agenda 21 (ACCA21), Tsinghua, Greengene etc.
- R&D phase to be concluded in 2009, currently working on several policy issues with a view to launching Phase II before the end of 2009



What next for NZEC?

- Research projects provide important input to the plan for implementation of next phases
- In parallel, prepare for Phase II (feasibility) on issues eg costs&finance, IPR, regulation & project selection
- European Commission is developing a policy paper on financing of CCS in developing countries (June 09)
- Seek to pursue cooperation with MOST on NZEC demo – start phase II 2010
- Could demo be operational ahead of original 2020 date?

- **CCS has great potential for GHG emissions reduction as part of a portfolio approach**
- **The EU is committed to demonstrating CCS**
- **We have developed a regulatory framework and policy to incentivise CCS**
- **European companies have the potential to lead in this new technology**
- **But CCS needs to be demonstrated globally in order to assess the potential of this technology, achieve improvements and drive down costs**
- **The EU is supporting CCS capacity building and demonstration in a number of emerging economies**