

What Next for CCS in the UK?

Tim Dixon

What Geological CO₂ Storage can bring to Mitigating Climate Change

A UK Research Perspective

UKCCSRC, London, 1 July 2015



What Next for CCS in the UK?

- Research supporting UK Demonstration projects
 - Proving storage performance and effectiveness
 - Developing and demonstrating monitoring technologies
 - Lowering costs
 - Meeting regulatory requirements
 - etc
- Research base supporting international CCS

Kyoto Protocol and CCS



Considering CCS in CDM since 2005

- 2005 CDM Executive Board (EB) considers two new CCS methodologies
- 2005 CMP1 Montreal
 - referred to SBSTA
- 2006 SBSTA Technical workshops - Consideration of technical and policy Issues
- On agenda of each SBSTA meeting
- 2007 and 2008 Submissions from Parties and NGOs – two synthesis reports
- 2008 Decision due at CMP4/COP14 Poznan – failed
 - CMP request EB to look at implications
- **2009 EB commission 'Experts Report'**
- 2009 Decision due at CMP5/COP15 Copenhagen – failed
- 2010 CMP6/COP16 Cancun

All CCS CDM reports and background <http://cdm.unfccc.int/about/ccs/index.html>

CDM Key Issues of Concern



Included

- Timescales of benefits vs liability
- Impact on CDM market
- Scale and impacts of leakage
- Furthering use of fossil fuels – sustainable development
- Role of CCS in climate change mitigation

Since CMP 5 (2009)

- Non-permanence
- Monitoring and verification
- Environmental impacts - **ecosystems, climate** (“massive catastrophic release”)
- Project boundaries and transboundary issues
- Liability
- Perverse outcomes
- Safety
- Insurance and compensation for leakage

Negotiations characterised by a few countries having strong views against CCS – but need consensus to progress.



UNFCCC Technical Workshop

Abu Dhabi 7-8 Sep 2011

- Brought technical expertise to negotiators
- Technical experts on site selection; modelling; accounting; project boundaries; transboundary; risk assessment; environmental impacts; monitoring; liability (28 talks, several UK researchers and members of IEAGHG Networks).
- Results and experiences from research, real projects and natural systems, to support modelling and risk assessments
- Good Q&As from CCS negotiators and others



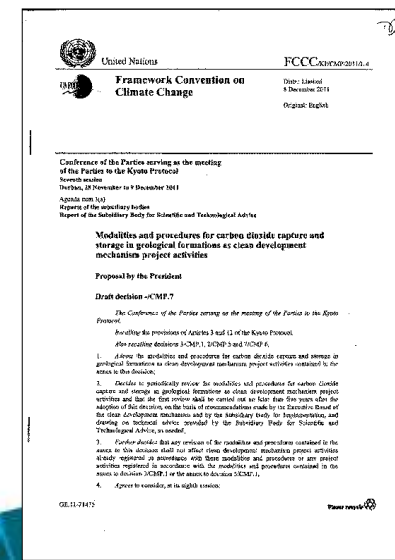
CMP7/COP17 Durban (2011) Negotiations on CCS CDM



- Over 32 hours of formal negotiations



- Agreed and adopted CCS Modalities and Procedures (Decision 10 CMP.7)



GHGT-12, Austin, Texas





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IEAGHG 2015 meetings in the UK



- Social Research Network.
- University of Cambridge, 6 July 2015

- Risk Management Network and Environmental Research Network.
- National Oceanography Centre, Southampton, 30 Sep – 2 Oct 15

- Joint CCSA / IEAGHG / UKCCSRC event - Pathways from Demonstration to Commercialisation
- 9 Nov, London



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