



**British  
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL



British Consulate-General Houston



# US – UK CCS Research and Development Workshop

Pittsburgh 10 and 12 May 2010

**CAPTURE ACADEMICS – A POSSIBLE WAY AHEAD**

## **David Cameron: Speech at Chongqing University in China, Dec 20, 2007**

For my country, which led the Industrial Revolution, this means that today we must lead the Green Revolution in the new technology of renewables, energy efficiency and decentralised energy.

And I can announce today one important way in which the next Conservative Government will do just that.

Both Britain and China have large reserves of coal. Yet, today, burning coal for electricity is a huge contributor global warming.

But we are on the brink of accessing a technology that could change all that.

### **Carbon Capture and Storage.**

This could increase our energy security - and help tackle climate change at the same time.

Right now, at least a dozen CCS pilots are ready to launch around the world.

But even though we have the depleted oil and gas fields that are ideal for testing this technology, not a single pilot is yet taking place in Britain. We cannot afford this kind of delay.

So I can announce that developing green coal will be a priority for a Conservative Government: we will do what it takes to make Britain a world leader in this crucial field.

All existing coal-fired power stations should be retro-fitted with CCS, and all future coal-fired power stations should be built with CCS.

If we don't do this, we will not meet our carbon emissions targets.

Of course, today the technology is not yet fully in place.

But that is not a case for inaction now.

Our Government should ensure that no new coal-fired power station should proceed without using it as a basis for trials for CCS technology.

And today, I want to make this bargain with you.

We will strain every sinew to create viable and affordable green coal technology.

And we will work with you to green your coal power stations and help you meet your environmental protection targets.

But we need something in return - the second vital aspect of environmental accountability.

We need China to make its data - about emissions, about efficiency, about imported timber - more transparent. We will not tackle climate change unless we have accurate information - to judge performance, to trade carbon, and to make a post-Kyoto international climate change agreement work.

# What won't work easily in a US/UK program(me)

Simultaneously matching a number of things very closely:

- Timing for funding
- Rules for calls and combined peer review
- Detailed priorities for research
- etc .....

## **What WILL work in a US/UK program(me)**

**Lots of support for CCS in both countries underpins the way ahead**

**Link together new (for UK) and existing topics of mutual interest**

**Partners would need (minimum):**

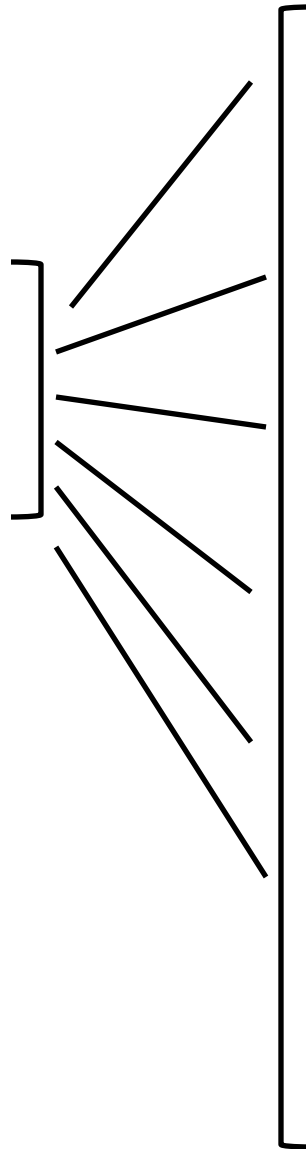
- travel and communications money
- 1-3 month money for overseas visits for PhDs and post-docs
- plus permission to collaborate of course

**Plus additional research funding to fill in gaps**

**Regular research workshops for long term continuity important**

# Topics discussed, with a lot of mutual interest

**Amine capture**  
**Solid sorbents**



**Optimising performance on actual plants including CO<sub>2</sub> compression and steam extraction**

**Corrosion – materials**

**Cost of sorbents and plant**

**Trace emissions**

**Impurities in the CO<sub>2</sub>**

**Waste stream management**

# Way forward

UK and US participants to work up brief summary descriptions on collaboration topics, to include:-

- Topics of interest free of IPR constraints
- Method of collaboration, e.g. meetings, data sharing, timelines, etc
- Benefits to both sides/quid pro quo
- What is funded and what isn't
- Needs for additional funding to make it happen

Plan a follow-up meeting to agree details

**Obama has invited Cameron to visit USA in July**

# Actions for tonight

- Agreement on the way forward
- Individuals identified to progress topics/summaries
- Timetable for responses
- US/UK funders to consider ways and means