



Carbon capture and storage in the North Sea: a national asset in a low carbon future

Carbon capture and storage (CCS) could be an industry the size of present day North Sea oil within a few decades. CCS is simply the reverse of the oil and gas business, putting climate-changing CO₂ gas back in the ground after fossil fuels have been burnt. This new technology is one of the ways that Britain could achieve its stated emission reductions as well as help other big CO₂ producers to reduce theirs. It also allows us to continue using fossil fuels to generate electricity.

In Britain we're lucky in being close to one of the largest areas of potential storage for CO₂ in Europe. The rocks under the North Sea could absorb about 22 billion tonnes of CO₂ which is 180 years of CO₂ from the UK's 20 largest point sources: power stations, refineries and cement works. This is a hefty reduction in Britain's CO₂ emissions.

The CCS business could be huge. UK Government estimates suggest a value of £2-4 bn/yr to the UK by 2030, sustaining between 30,000 and 60,000 jobs, with a cumulative value of £25-45bn between 2010 and 2030. The UK CCS business will likely take off from regional clusters like the Humber, Teesside, Thames Gateway, the Firth of Forth and Merseyside where existing hydrocarbon and other industrial infrastructure might be used and offshore engineering expertise can be harnessed. Other European hubs could be Rotterdam, Ruhr and Saar-Rhine.

But the science of CCS needs to be well communicated. Its present association with big business tends to act against its climate abatement credentials. Governments can't afford to let big business put the case for CCS. In terms of the feasibility and safety of CCS, independent scientific organisations like geological surveys and universities are needed at every stage in understanding the regional and transnational issues, the safety issues and to inform the regulators. A broad approach should also ensure that the public sees the opportunity of CCS as just that - a way to develop and sustain climate abatement and energy in the national interest.

Speakers are

1. Mike Stephenson (Chair; Head of Energy Science British Geological Survey)
2. Bronwen Northmore Head of Climate Abatement, DECC
3. Stuart Haszeldine (University of Edinburgh)
4. David Reiner (Judge Business School, Cambridge)
5. Andy Reid (EON).

At the end of the presentations we will open the floor for discussion for approximately 15 minutes.