



## **IEAGHG Information Paper 2015-2; The Finance Sector needs CCS. So is this a new source of funding for demonstration and deployment of CCS projects?**

The Financial Times reported on the 30<sup>th</sup> November that the Bank of England is to examine formally for the first time the risks fossil fuel companies pose to financial stability in a future carbon-constrained world. It is reported that Mark Carney, the Governor of the Bank of England, wrote to UK politicians in the Environmental Audit Committee informing them that his officials have discussed the idea that most of the world's proven coal, oil and gas reserves may be "unburnable" if global warming is to be kept within safe limits, and asking the Bank of England's Financial Policy Committee to consider this issue as part of its regular horizon-scanning work on financial stability risks. The Financial Policy Committee was created in 2011 following the financial sector's instability in order to identify and reduce systemic financial risks.

The Carbon Tracker Institute had previously been highlighting this risk to the world's capital markets in a series of reports (e.g. <http://carbontracker.live.kiln.it/Unburnable-Carbon-2-Web-Version.pdf>)

In COP-20 in Lima, I witnessed protests against fossil fuel producers, some of whom were misusing the IPCC AR5 quote 'no fossil power by 2100' to argue that all fossil fuel reserves should be left in the ground (AR5 actually says no fossil power without CCS by 2100). In fact AR5 points out that the availability of CCS would reduce the adverse effects of mitigation policies on the value of fossil fuel assets.

The German news agency DW reported on 22<sup>nd</sup> December that Joan Walley, who heads the UK government's Environmental Audit Committee, has said that investors should closely watch for what effects climate treaties could have on fossil fuel reserves. "Policymakers and now central banks are waking up to the fact that much of the world's oil, coal and gas reserves will have to remain in the ground - unless carbon capture and storage technologies can be developed more rapidly".

Several news media picked up the negative aspects of these stories relating to the finance industry's re-assessment of the risks in fossil fuel reserves in the context of potential future climate agreements. But instead of a negative, this should be considered a positive development for CCS.

The International Energy Agency has been mentioning this concept for a couple of years. "If the world is to have a reasonable chance of limiting the global average temperature increase to 2 °C ..... less than one-third of proven reserves of fossil fuels can be consumed prior to 2050, unless CCS technology is widely deployed. Not only does CCS serve our climate objectives, but investing in development and deployment of CCS is an important risk management ("hedging") response for companies and governments who derive significant income from fossil fuels. CCS therefore promises to preserve the economic value of fossil fuel reserves and the associated infrastructure in a world undertaking the strong actions necessary to mitigate climate change." (IEA CCS Technology Roadmap 2013 and IEA World Energy Outlook 2012).

CCS is at a critical stage. There are just enough large-scale demonstrations operating to substantiate the confidence that it works at large-scale, but not enough to put it on the path to meeting climate goals. Governments' policies have been variable in their effectiveness at stimulating large-scale demonstrations of CCS, succeeding in Canada and USA, but failing badly in Europe<sup>1</sup>. And none of these policies have yet stimulated the large-scale commercial deployment such as we have seen with wind power. Such policies have been implemented by various means, by using tax-payers money to fund grants for capital investment, using market-mechanisms such as emissions trading, and by using



regulation (eg emissions performance standards). For example, there is one potential large-scale demonstration CCS power project left in the EU from all those which the EU's policy efforts tried to support in the last 6 years, the ROAD project in the Netherlands. This project has its permits and everything else it needs, but has a funding gap which stops it proceeding, this is just some 100 million Euros it is said. If the potential risks to financial stability are as great as some in that sector worry, perhaps the financial sector should be doing more to encourage demonstration and deployment of CCS more directly, for example by direct investment. This could make a big difference to CCS demonstration projects and to future deployment. Such investment would then be helping to ensure the stability of their own sector, future-proofing it for a future carbon-constrained world, in addition to the climate and other environmental benefits that all would accrue.

So perhaps the CCS world needs to be engaging more with the financial world?

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Footnote 1: In Europe, there exists two large-scale operating CCS projects but these are on natural gas processing, not power generation. The UK has policies in place to encourage two CCS power projects, currently in engineering design stages, but if successful these will not be operational until 2017 or later.