CCSA Briefing on the Energy Bill

August 2012

Introduction

The importance of CCS to significantly reduce emissions in both power and industrial sectors should not be underestimated. With the closure of 35GW of existing electricity generation capacity over the next few decades, fossil fuels will continue to play a vital role in our energy mix going forward. Only with CCS, can we ensure that this role is fulfilled, whilst enabling climate change targets to be met alongside the decarbonisation of the power sector in the 2030s. The global market for CCS is expected to be worth trillions of pounds by 2050, and the UK share has been estimated at £6.5billion per year by 2030, supporting more than 100,000 jobs. Only with the development of an appropriate regulatory and financial framework for CCS, can we ensure that the benefits of CCS can be realised.

The Carbon Capture and Storage Association welcomes the Electricity Market Reform (EMR) package, laid out in the Draft Energy Bill in May, and is supportive of a number of developments including the new Contract for Difference (CfDs) incentive mechanism. Of the four EMR instruments it is the CfD that will be the primary tool to drive the deployment of CCS, and indeed all other forms of low carbon generation. Designed appropriately, the **CfD will be the primary tool to drive the commercial deployment of CCS in the UK**. Therefore it is essential that EMR sends strong, clear signals to CCS project developers, investors and the supply chain, at this critical time in the development of the sector, that the EMR will unequivocally support CCS. However, whilst the CCSA supports the UK's reform of the electricity market, there is a real danger that the proposals set out in the draft legislation, will not provide the investment confidence required by CCS project developers.

Background

Project developers are currently applying for support as part of the DECC CCS Commercialisation Programme launched in April 2012. However, given the funding constraints of the programme it is clear that the majority of projects will not receive the support necessary to be developed. It is therefore critical that EMR sends strong, clear signals to project developers, investors and the supply chain on the incentive framework that will be made available to CCS. This will ensure that the projects not selected under the Commercialisation Programme are kept alive and taken forward.

To deliver the EMR objectives of a secure, low-carbon and affordable electricity system requires the deployment of fossil fuel plants fitted with CCS alongside renewables and nuclear energy. To achieve this CfDs have to be viable for each of the low carbon technologies. The CCSA's view is that much of the EMR documentation is based on the paradigm that low-carbon technologies have high capital costs and low operational costs. This view risks the development of instruments that are not able to incentivise the deployment of the full range of technologies necessary to meet EMR's core objectives.

CCS projects have a number of other specific and unique characteristics that need to be reflected in the design of CfDs. These are explored in more detail below, with recommendations on how to ensure this pioneering low carbon support mechanism builds on DECC's Commercialisation Programme and continues to develop the CCS industry in the UK. This is a critical period for CCS in the UK; this Government has to get EMR right if we are to make CCS in the UK a success.

Timing of Royal Assent

It is critical that progress of the Energy Bill is not delayed. Any significant delay risks undermining investor confidence, delaying early investment decisions and jeopardising the Government's goals for early CCS deployment. The CCSA is very supportive of the Government's objectives of having the first UK CCS projects operating from 2016 and believes that this is achievable. Meeting this deadline would require investment instrument support contracts to be signed in 2013. The CCSA is therefore concerned that Royal Assent of the Energy Bill is not expected until Q4 2013.

Investment signal

The investment signal from the EMR for CCS projects developers beyond the current CCS Commercialisation Programme is currently extremely weak. It is critical that this is addressed in order to send a clear signal to CCS developers, investors and the supply chain so that CCS investments can be planned in a timely manner. The key instrument to provide the signal on the Government's CCS objectives is the 2013 Delivery Plan which will cover the delivery period 2014 – 2018. The CCSA believes that the 2013 Delivery Plan needs to contain the following details;

i. <u>The Government's CCS objectives for the UK electricity market</u>. The 2013 Delivery Plan must provide a credible, strong and clear signal on the Government's CCS objectives in order that CCS developers and investors are able to respond and undertake the large pre-investments necessary to develop projects for the first delivery period. The signal needs to provide a degree of confidence equivalent to that provided to other technology classes.

ii. <u>Price setting process for CCS CfDs Strike Prices</u>: Given the relatively early stage of CCS technology that the negotiation of CCS CfD strike prices on a project-by-project basis is appropriate.

iii. <u>Allocation of CCS CfD contracts for CCS</u>. CCS CfD contract allocation rounds should be run on a periodic basis over each delivery period. For renewables it is proposed that the allocation rounds occur every 6 months. Given the inherent larger size and complexity of CCS projects then this period is too short and a longer gap is required. Phasing the allocation of CCS CFD contracts has a number of advantages which enable a smoother process for allocation, including;
   - A more even demand on Government resources during the CfD allocation process.
   - The development of a more predictable and sustainable CCS industry and supply chain
   - Increased 'learning by doing' for Government and industry and the ability to incorporate learnings into subsequent allocation rounds.

Contracts for Difference

Increasing amounts of **intermittent and inflexible generation on the system creates uncertainty on the CCS plant's future load factor**. The CCSA does not believe that the baseload metered output contract model that is currently proposed is viable for CCS projects. Conditions in the electricity market under this model that serve to restrict baseload generation at the expense of intermittent generation will artificially lower CCS plants load factors and revenue stream. The CCSA believes that the appropriate market model for the first CCS plants should be as baseload plant as this will enable the plant to be operated in the most economically efficient manner. However, the CCSA recognises that CCS is ultimately likely to be required to operate with a degree of flexibility to provide the valuable system support services which this technology can deliver and further thought should be given to how this can be properly incentivised.

The current proposal for a 10 year CfD contract for the first CCS project is completely inappropriate as **CCS projects have a long-operating life** (20-25 years) – the storage part of the CCS chain can even have an operating life of up to 50 years. The CCSA therefore believes that the length of CfD contracts for CCS projects should match their operating timescales which will reflect the operational life of the asset and, as the revenues are spread over a longer period, should result in a lower cost for consumers than a shorter contracting period. The length of contracts should be determined separately for each project, at least initially, on the basis of negotiations between the Government and individual projects. It seems inconsistent that unabated gas plant will be guaranteed freedom to operate as such for 30 years whilst abated gas or coal plant would only be guaranteed a commercial lifespan of 10 years.

Determining the appropriate reference price is of central importance to the viability of the CfD model. The CCSA believes that the year-ahead baseload price is not an appropriate reference price. There is concern about current market liquidity and whether proposed reforms will be sufficient to increase liquidity to the extent required. For these reasons the CCSA advocates a shorter reference price and requests further discussion with the Government on the appropriate reference price for CCS projects.