



*Carbon Capture &
Storage Association*

Carbon Capture and Storage Association input to; *A call for evidence on barriers to securing long-term contracts for independent renewable generation investment*

Introduction

The Carbon Capture and Storage Association welcomes the opportunity to respond to the call for evidence on barriers to securing long-term contracts for independent renewable generation investment as this work has important implications for the UK CCS industry.

The CCSA brings together a wide range of specialist companies across the spectrum of Carbon Capture & Storage (CCS) technology, as well as a variety of support services to the energy sector. The Association exists to represent the interests of its members in promoting the business of CCS and to assist policy developments in the UK and the EU towards a long term regulatory framework for CCS, as a means of abating carbon dioxide emissions.

The CCSA has provided a number of comments below on PPAs and CCS. However, the CCSA strongly recommends that DECC seek further input on this matter from CCS developers, investors and PPA buyers to ensure that any future interventions in the PPA market that might arise from this call for evidence adequately address the needs of independent CCS generators.

Comments

1. Independent generators are significant players in the development of CCS in the UK and a number have submitted project proposals to the current UK CCS commercialisation programme. Independent generators are also expected to play an important role in the future development of CCS capacity under the new market arrangements being established through the Electricity Market Reform. CCS will be a key tool for decarbonising the UK electricity sector with this investment being driven by FiT CfDs.
2. Given the importance of CCS to the UK electricity market and the role that independent generators will play in developing that capacity the call for evidence and any subsequent work should not be limited to issues impacting on renewable investment and must also consider CCS and other forms of low-carbon generation. In common with the situation facing the renewable sector independent CCS generators are likely to need a PPA with a credit-worthy counterparty before finance

will be provided to a project by banks. Failure to be able to access PPAs could impact on the development of CCS in the UK.

3. CCSA is unable to provide responses to the detailed questions on experience of accessing PPAs for CCS projects. However we have identified a number of issues that should be considered as this work progresses.
4. Independent CCS generators are expected to experience the same challenges accessing PPAs that confront independent renewable generators as a result of the lack of long-term PPAs being offered in the market. In addition CCS project developers may experience a set of additional challenges as a result of the distinct characteristics of CCS projects.
5. The CCSA has anecdotal evidence that long-term PPAs are now very challenging to acquire and may no longer be available in the market. The lack of long-term availability is, in part, due to the uncertainty over the new market arrangements that are being developed under EMR. This creates distinct challenges for independent CCS developers which are considered further below.
6. CCS projects are capital intensive assets with a long operating life. While the details on CfD contract length are still to be determined it is likely that CCS projects will have CfD contracts that are longer than those offered to some renewable technologies. These in turn may require CCS generators to seek PPAs with longer terms than some renewable generators will seek. It is these longer PPAs that we understand are the most limited in the market.
7. A significant number of well advanced CCS projects have been entered into the UK commercialisation programme and the Government's objective is for the first CCS projects to be operating from 2016. CCS could therefore realistically be the first low-carbon generation capacity that is supported by CfDs (or the investment instruments under the FID-enabling process). The uncertainty on the availability of PPAs for CfD supported generation and how long this scarcity will persist is therefore of particular concern for CCS projects.
8. In addition to generic concerns on the availability of PPAs there is uncertainty on how PPA buyers will view and value CCS capacity. CCS projects have a number of first of a kind risks associated with the integration of established technologies into a novel value chain, e.g. uncertainty on the availability of the CCS chain. These might limit the number of buyers for CCS PPAs.
9. There are outstanding issues to be resolved on the reference price that will be used for CCS CfD contracts, including the determination of the appropriate market segment for the reference price and work on increasing the liquidity and hence the confidence in that market segment. There is also uncertainty on whether PPAs will trade at a significant discount relative to the reference price used for CfDs. These discounts might be driven by the market's reaction to the new CfD arrangements which is currently unknown. In addition, PPAs typically trade at a discount to the

market price which partly reflects the balancing costs that are borne by the PPA buyer. However there is uncertainty on whether these discounts will increase over time in response to the higher balancing costs that will result from increased volumes of intermittent generation being added to the system. This uncertainty is exacerbated lack of clarity on the future volumes of intermittent generation that will be permitted on the system. The PPA discounts relative to the reference price could result in a significant basis risk for project developers which may need to be considered during the development of CfD terms.

10. The CCSA strongly recommends that input should be sought and considered from CCS developers and investors as well as PPA buyers to better understand the needs of the sector and ensure that any future interventions in the PPA market adequately address the needs of independent CCS generators.
11. The CCSA is keen to engage further with DECC on this issue to ensure that the views from independent generators of all technologies are appropriately considered.

The view expressed in this paper cannot be taken to represent the views of all members of the CCSA. However, they do reflect a general consensus within the Association.

